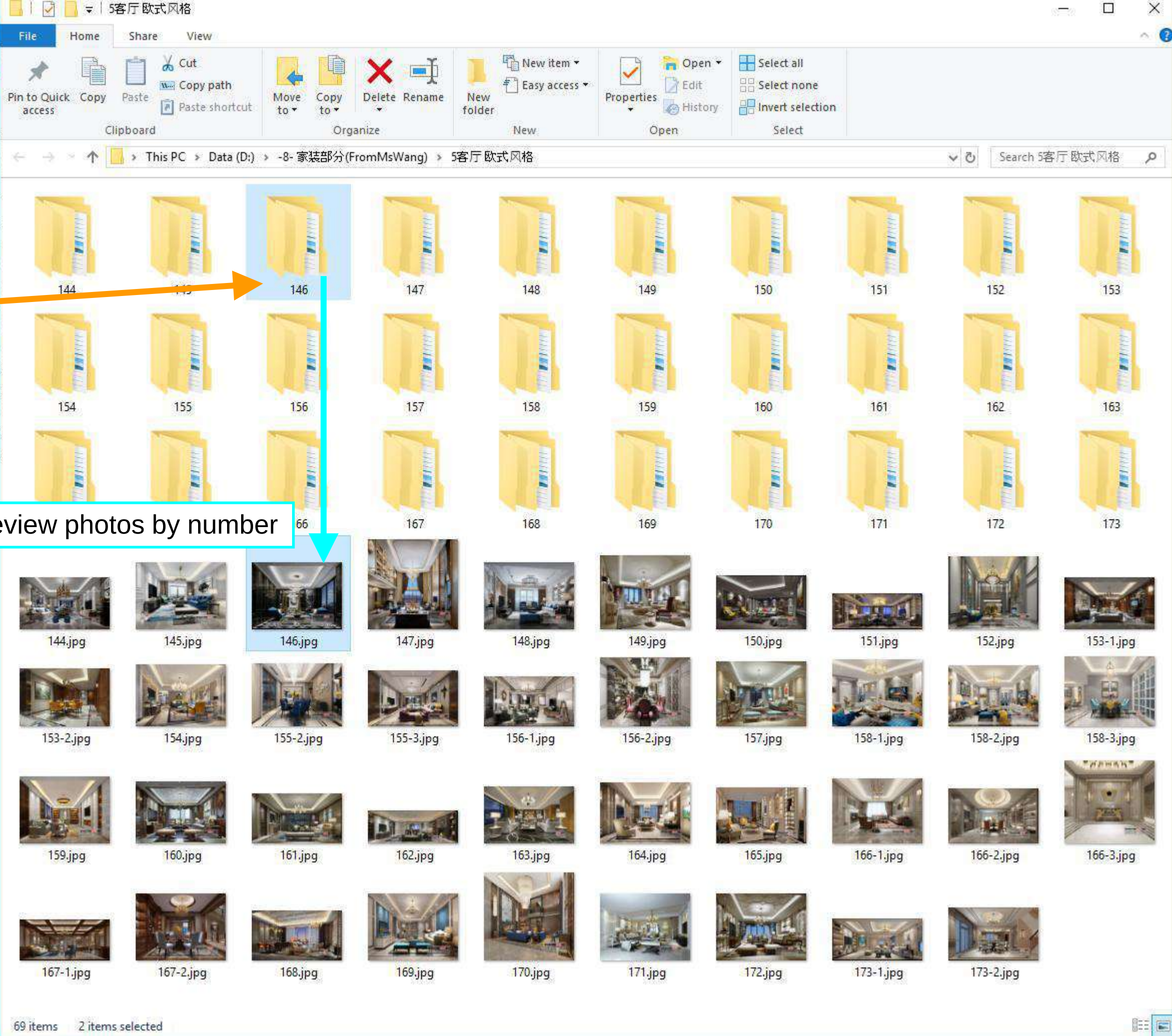
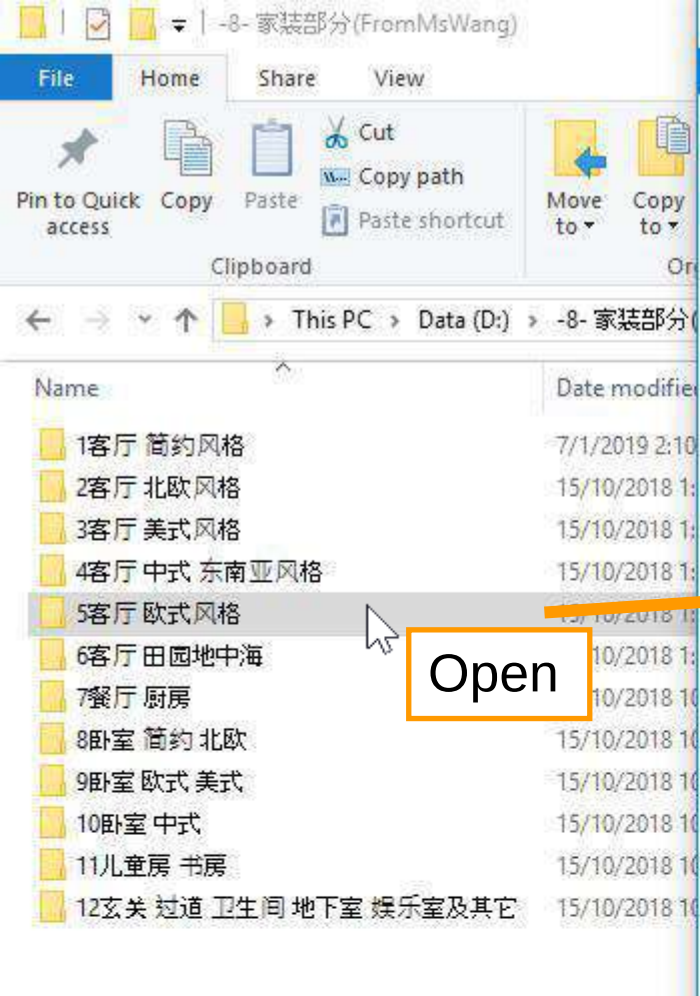
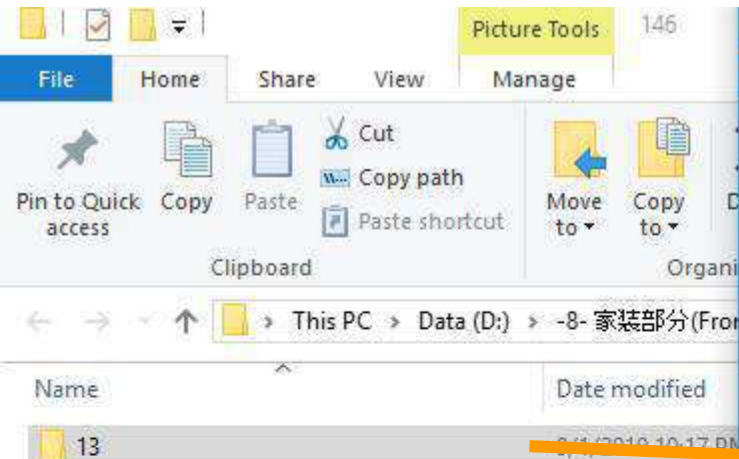


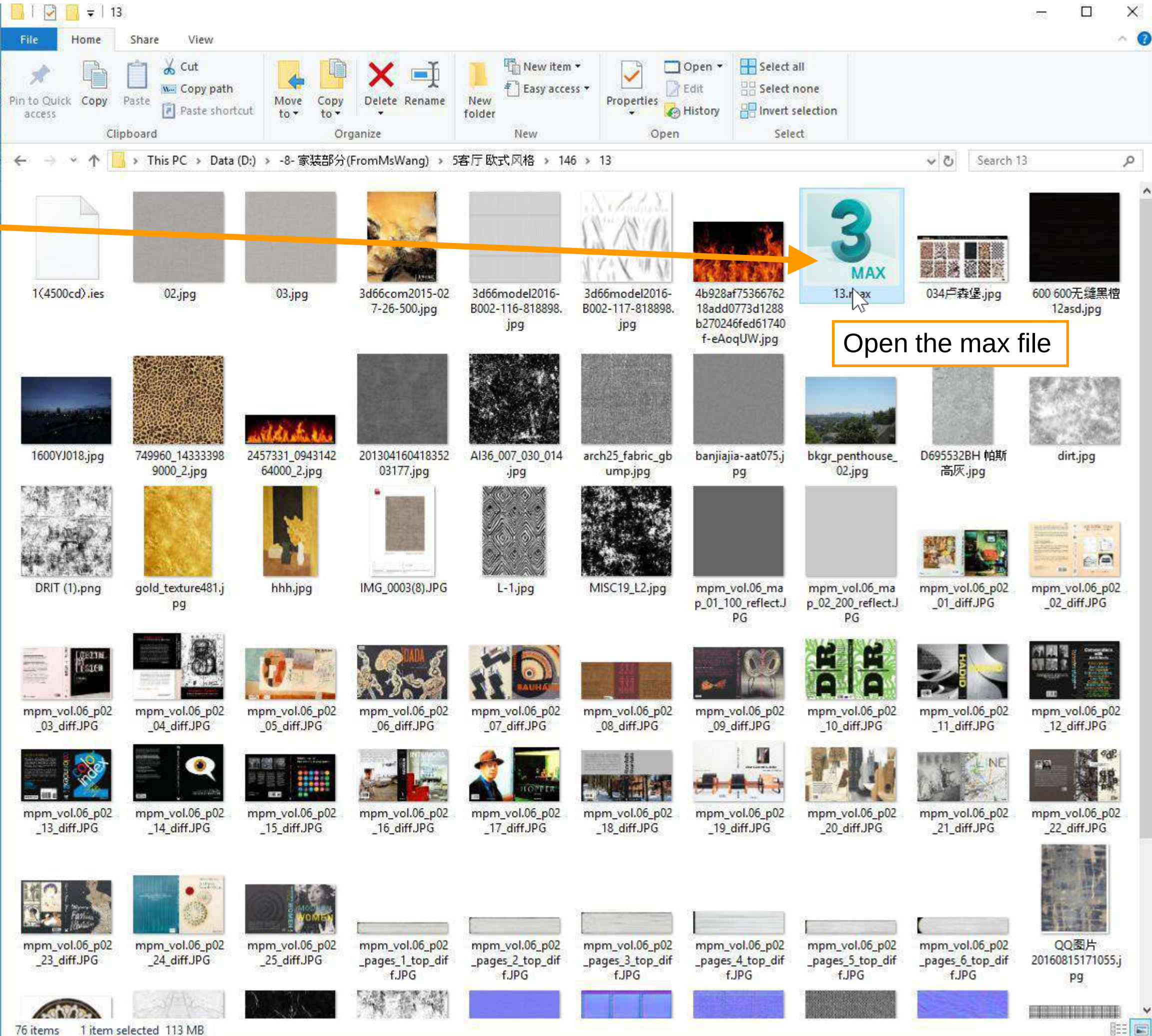
Vray white box or grey rendering, and full color rendering
Full complete Tutorial from: Chyi

Step 1: Open the "家装部分" folder given by the teacher

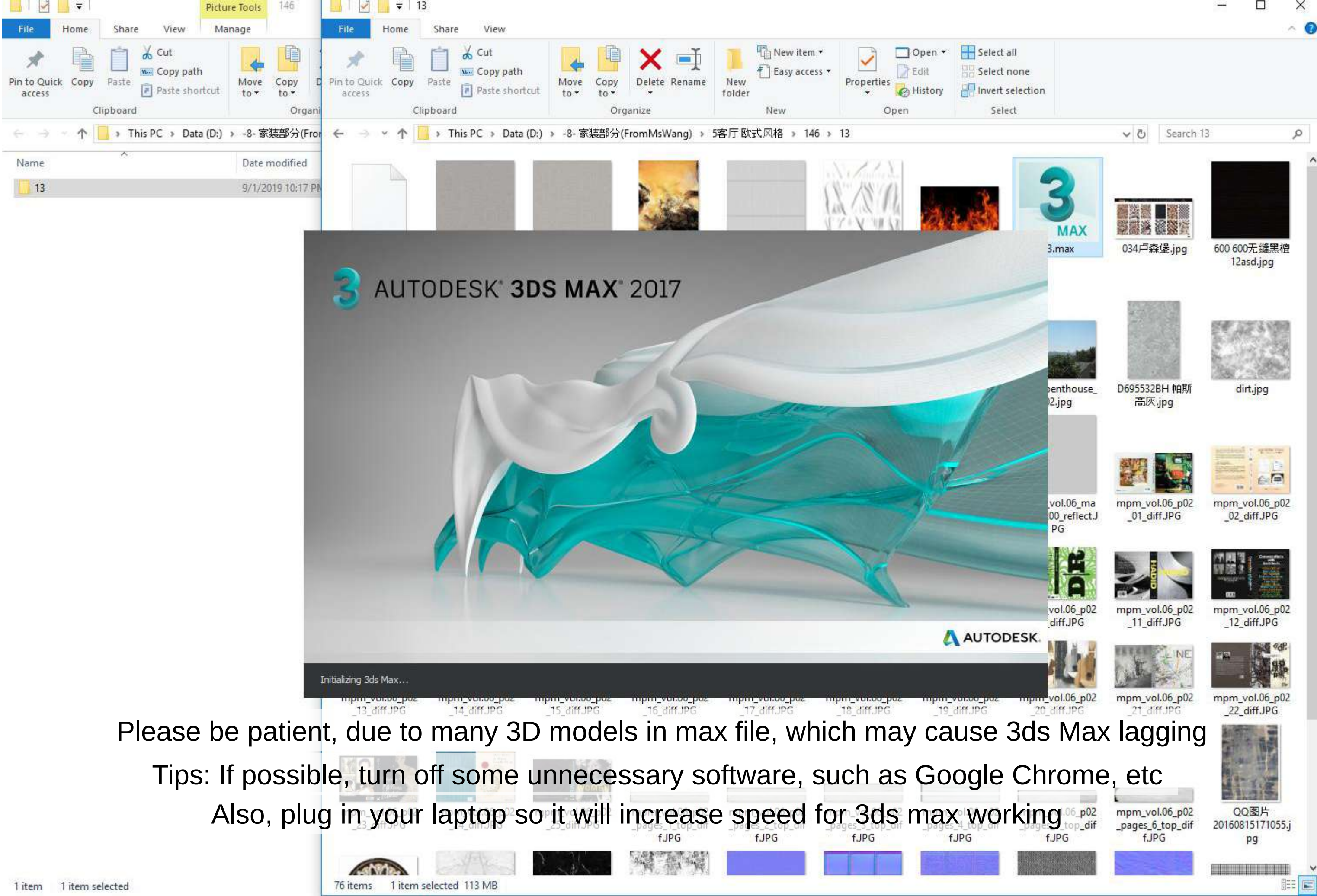




Open the folder



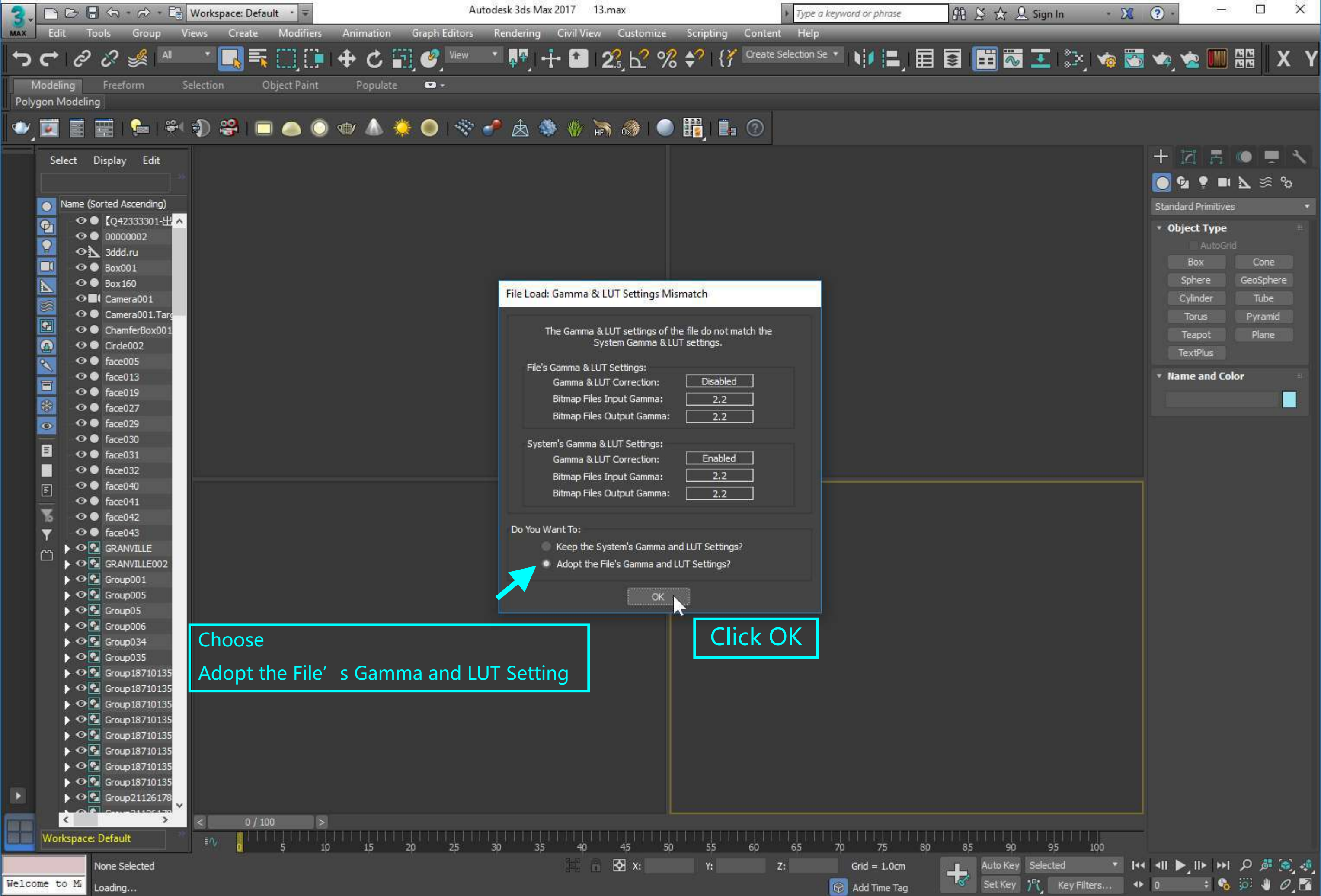
Open the max file



Please be patient, due to many 3D models in max file, which may cause 3ds Max lagging

Tips: If possible, turn off some unnecessary software, such as Google Chrome, etc

Also, plug in your laptop so it will increase speed for 3ds max working



File Load: Gamma & LUT Settings Mismatch

The Gamma & LUT settings of the file do not match the System Gamma & LUT settings.

File's Gamma & LUT Settings:

Gamma & LUT Correction:	Disabled
Bitmap Files Input Gamma:	2.2
Bitmap Files Output Gamma:	2.2

System's Gamma & LUT Settings:

Gamma & LUT Correction:	Enabled
Bitmap Files Input Gamma:	2.2
Bitmap Files Output Gamma:	2.2

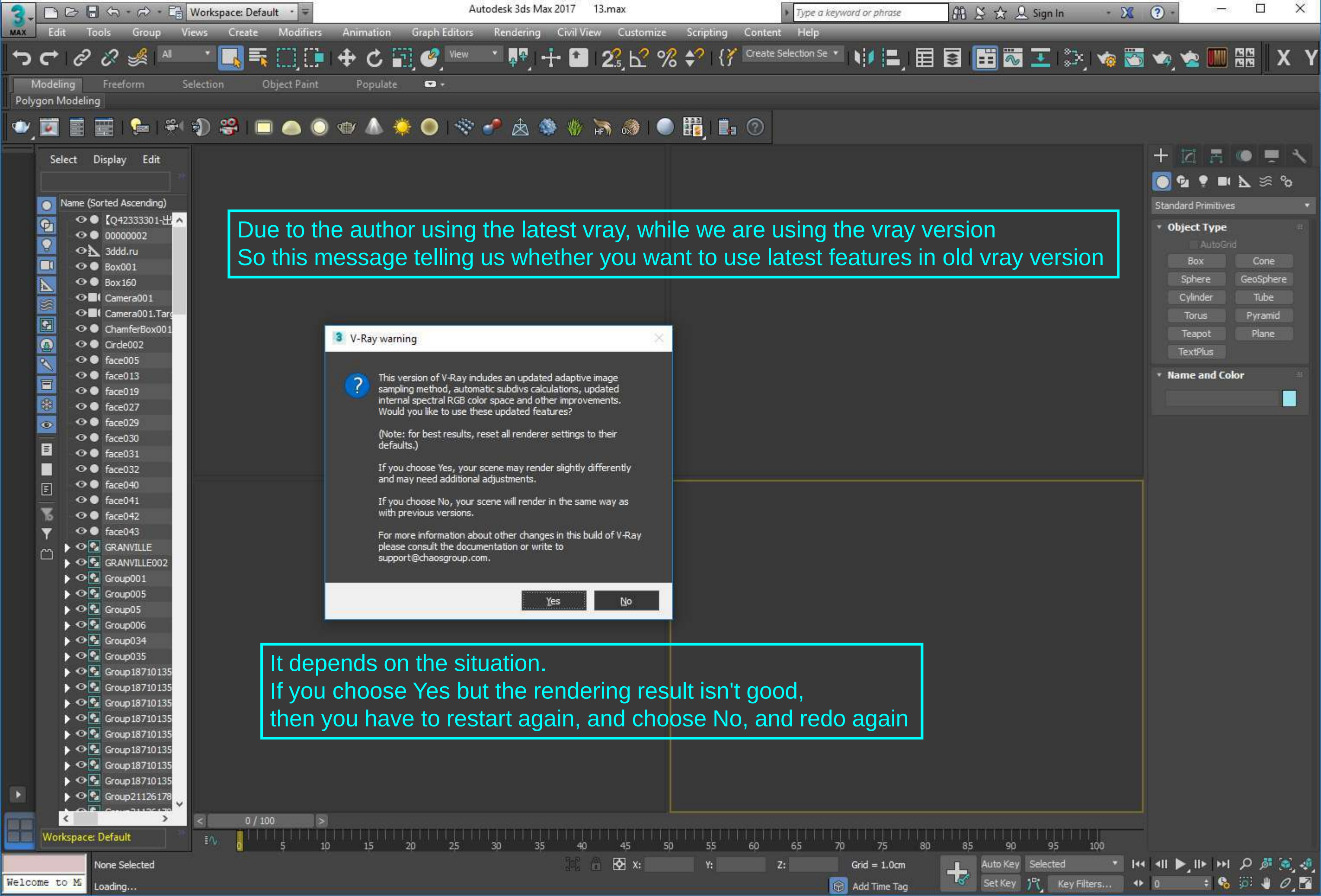
Do You Want To:

- ☐ Keep the System's Gamma and LUT Settings?
- ☒ Adopt the File's Gamma and LUT Settings?

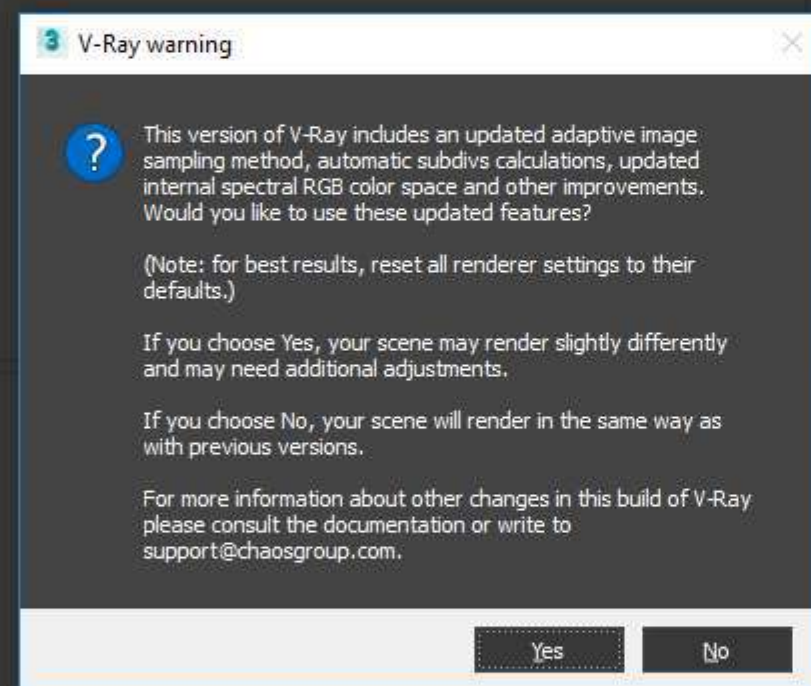
OK

Choose
Adopt the File's Gamma and LUT Setting

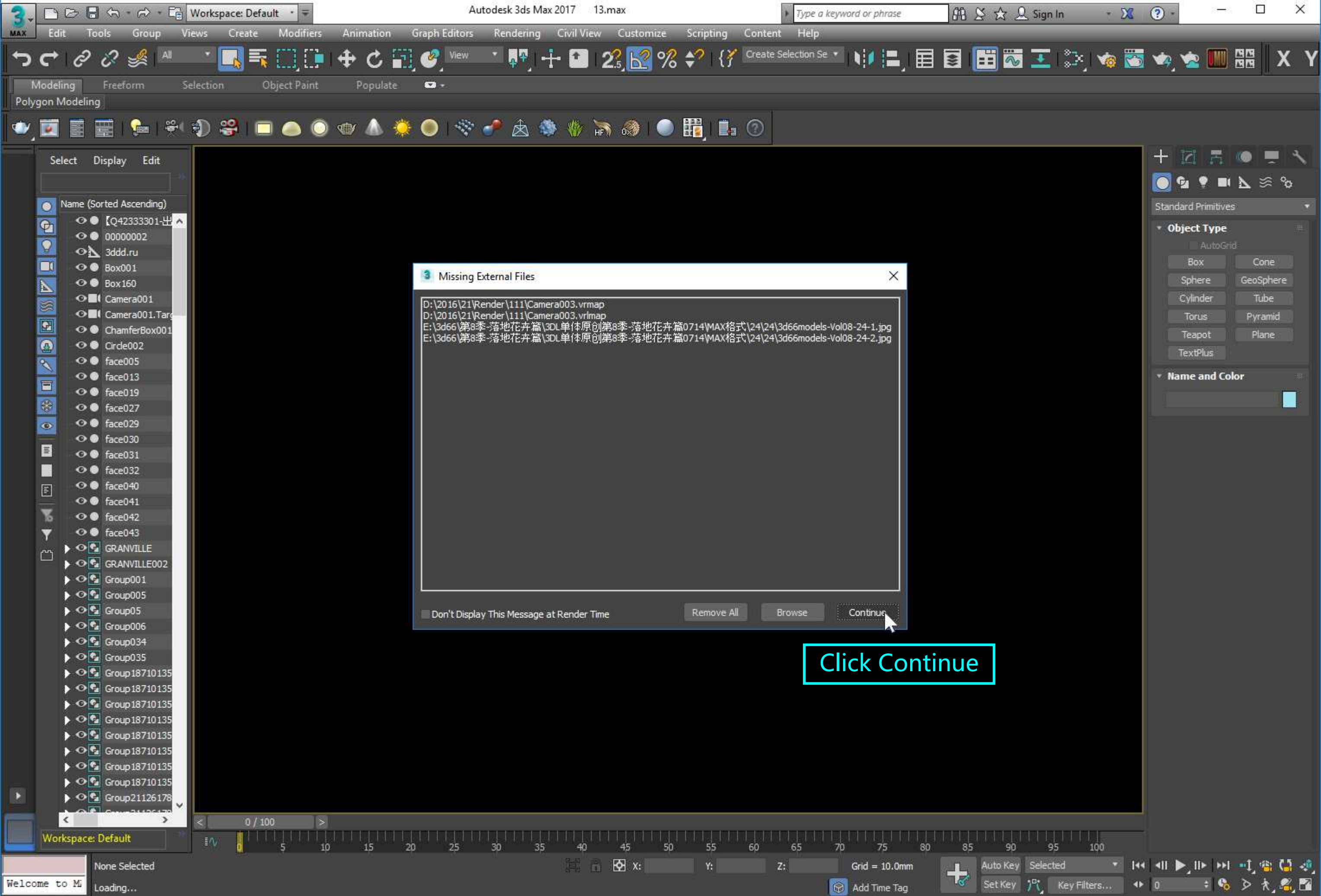
Click OK

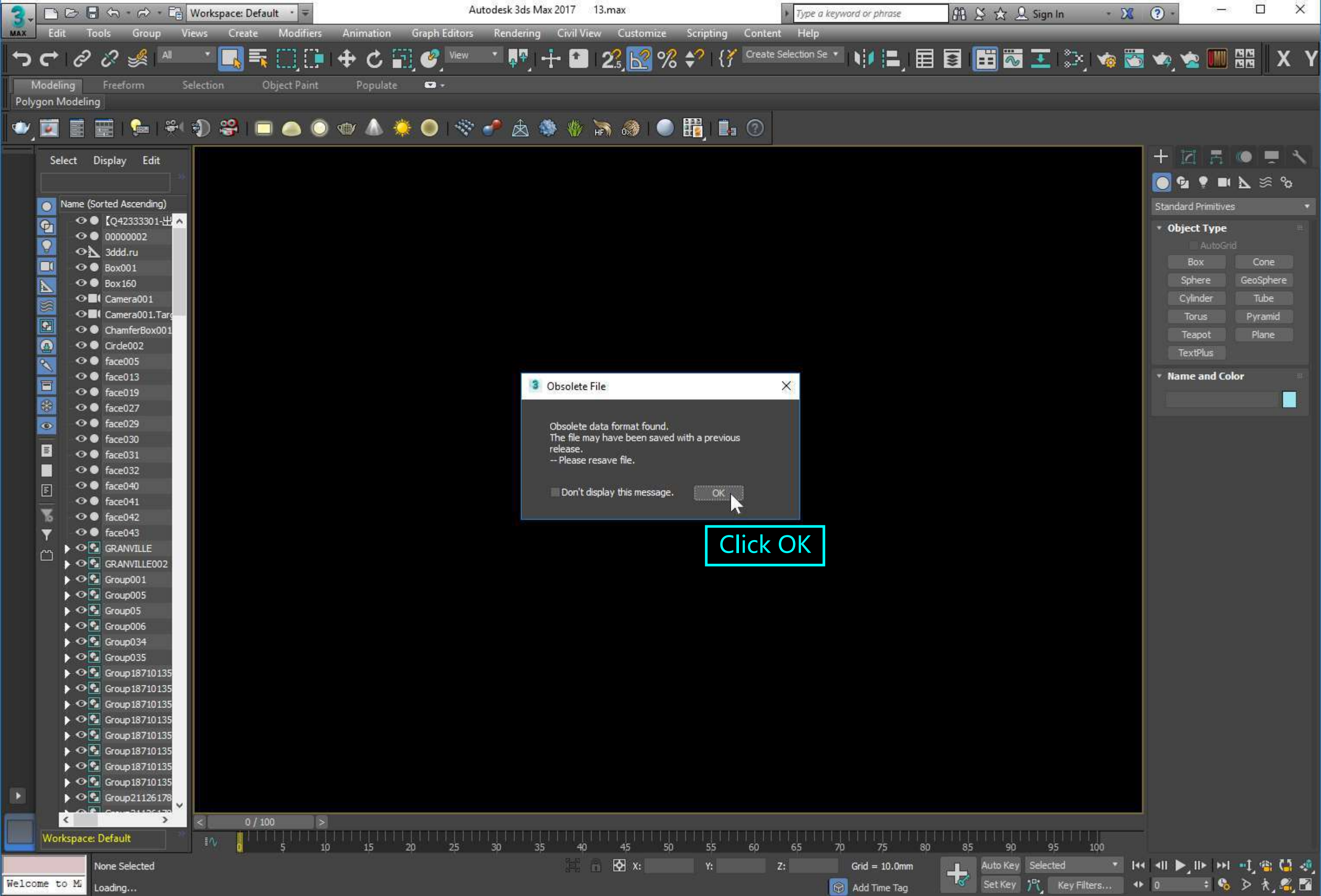


Due to the author using the latest vray, while we are using the vray version
So this message telling us whether you want to use latest features in old vray version



It depends on the situation.
If you choose Yes but the rendering result isn't good,
then you have to restart again, and choose No, and redo again



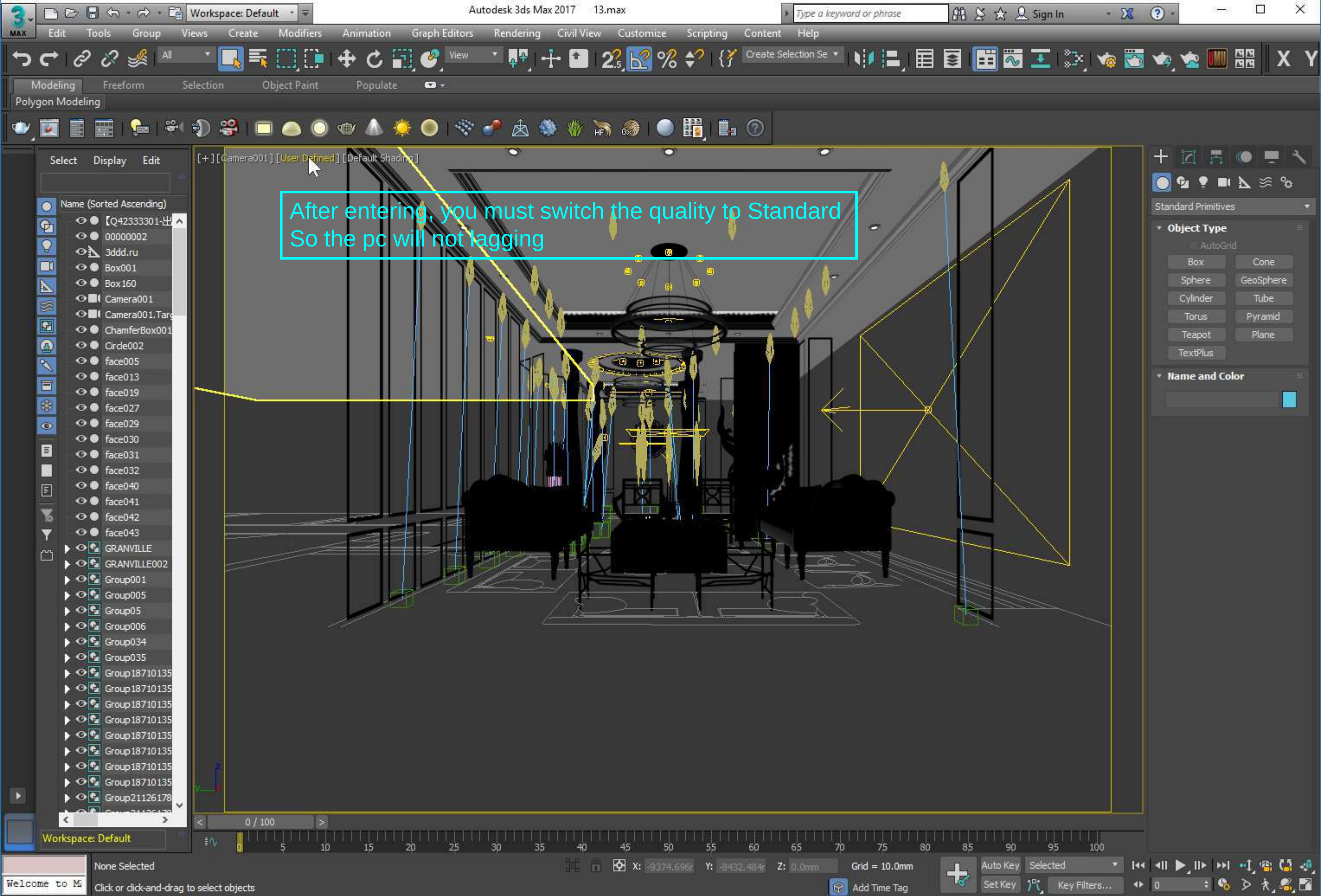


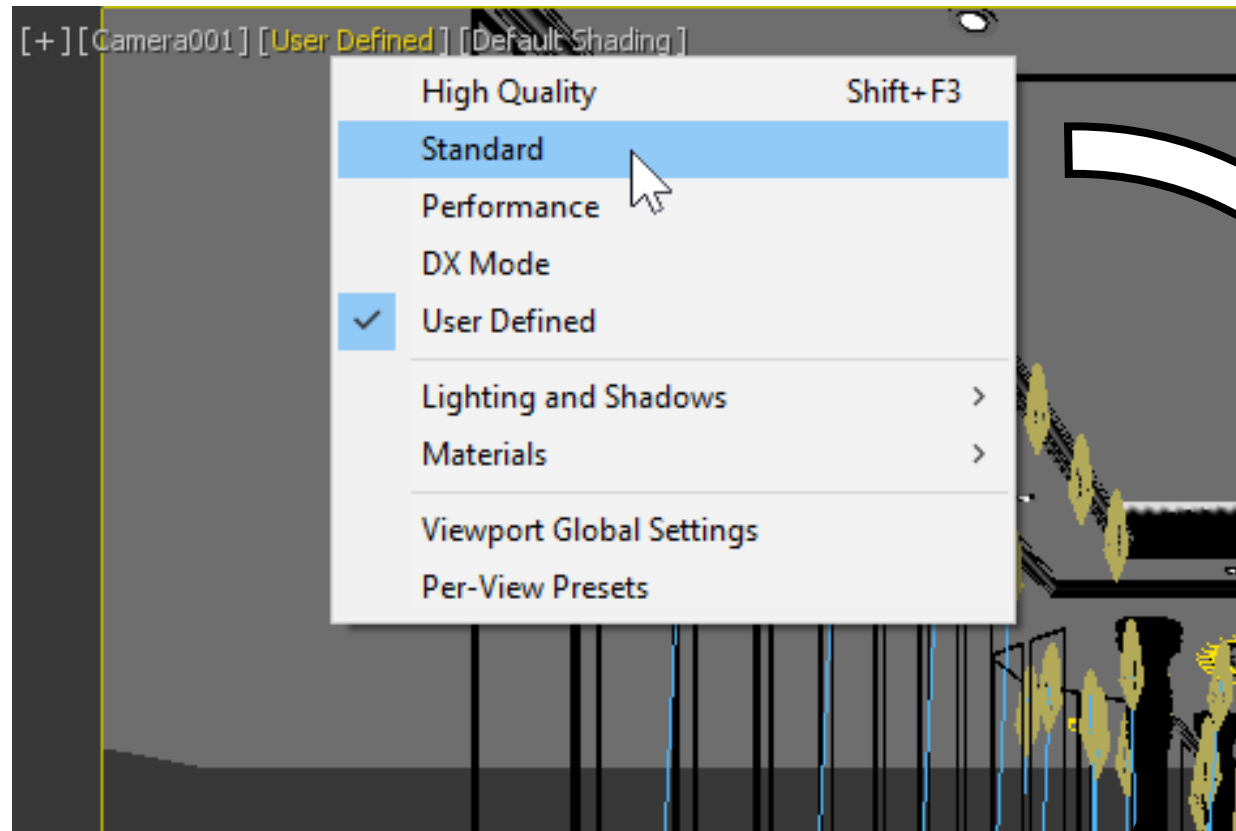
Obsolete File

Obsolete data format found.
The file may have been saved with a previous
release.
-- Please resave file.

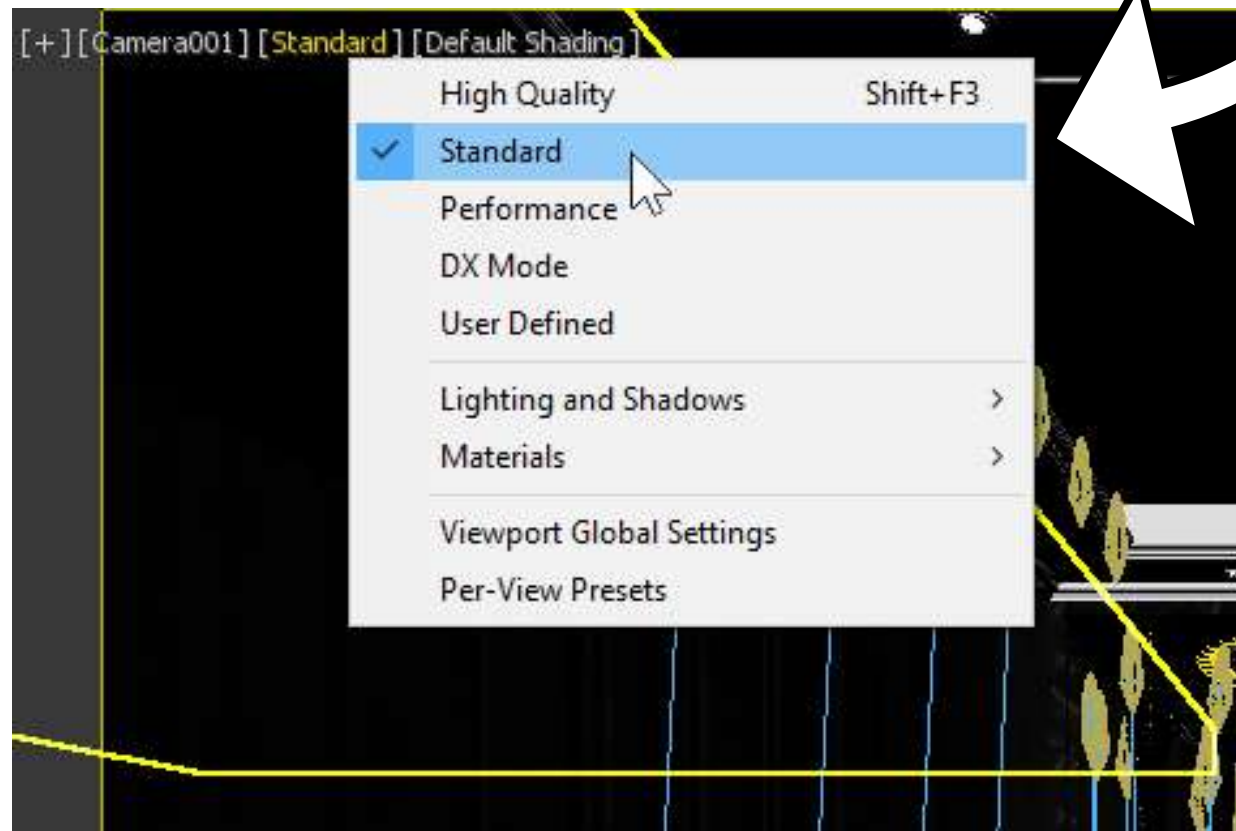
☐ Don't display this message.

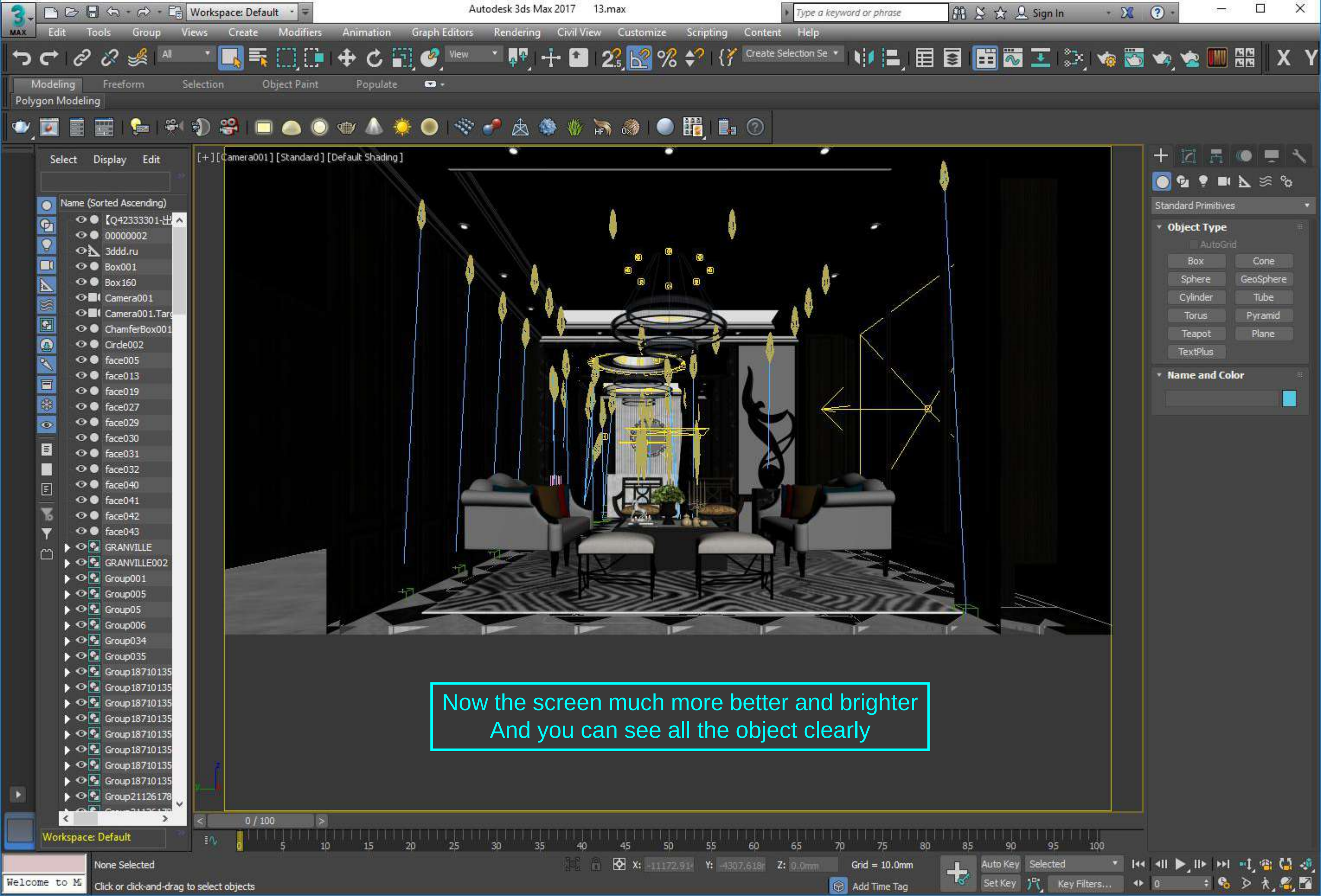
Click OK





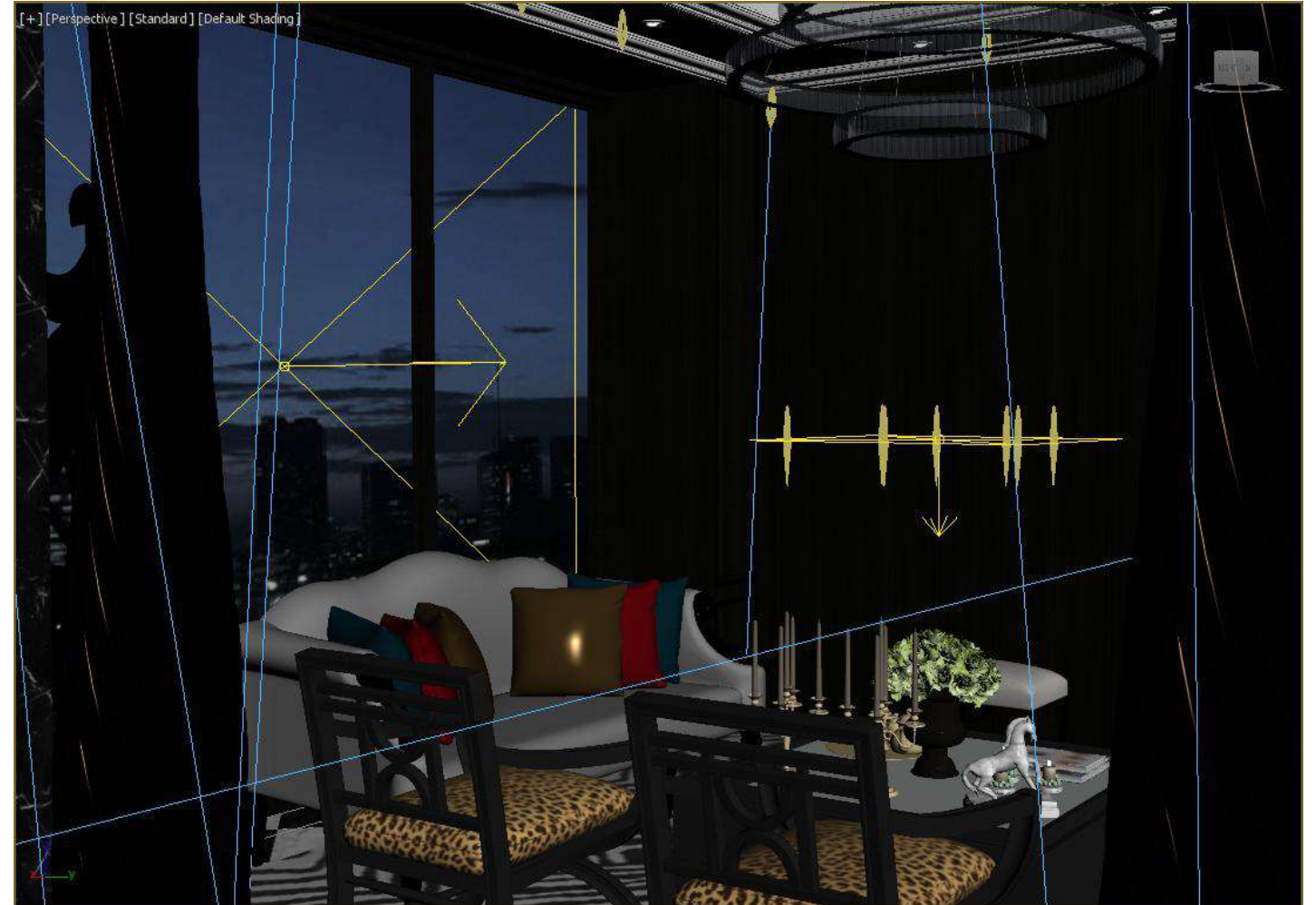
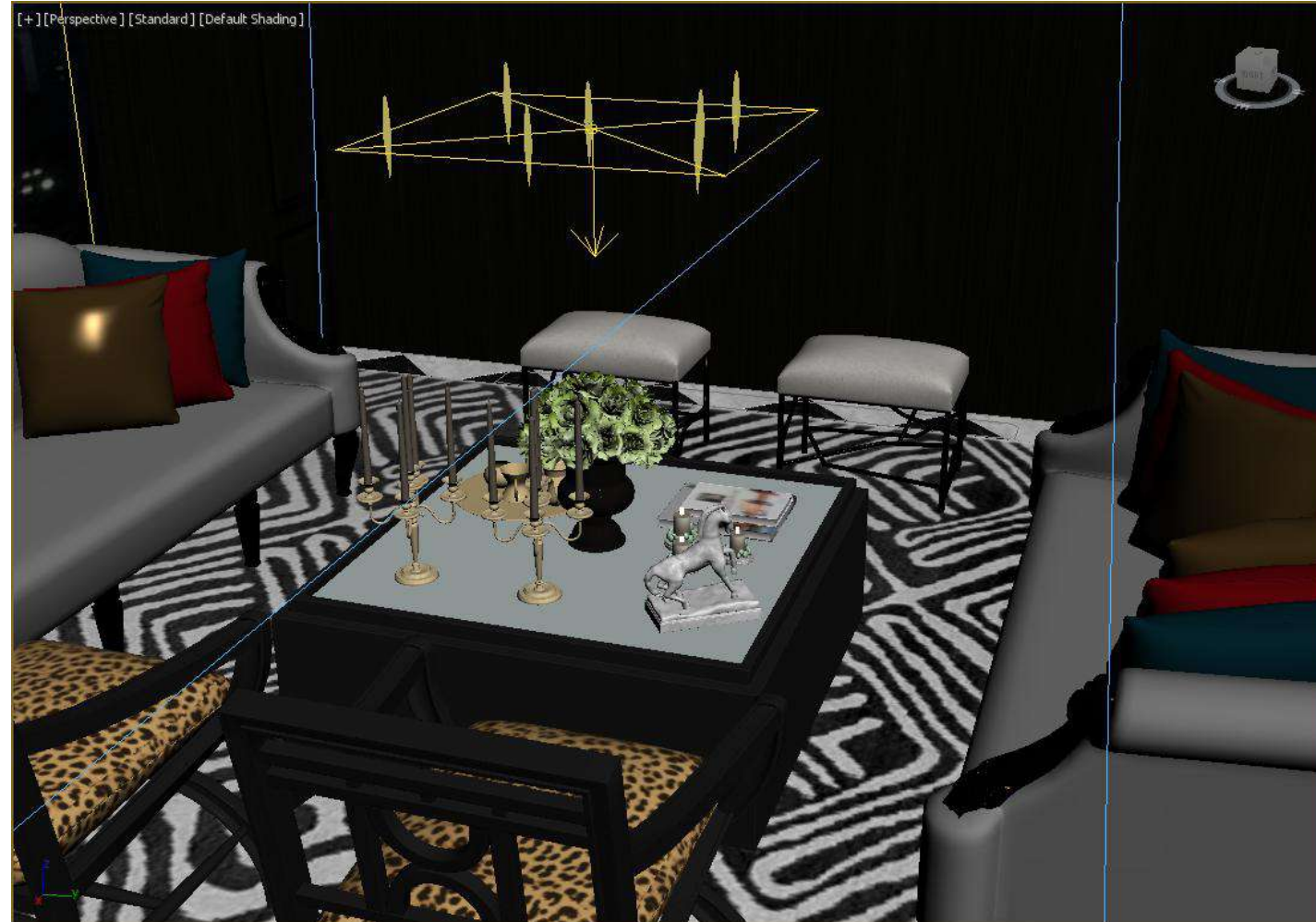
Left mouse button [User Defined]
And change it to Standard



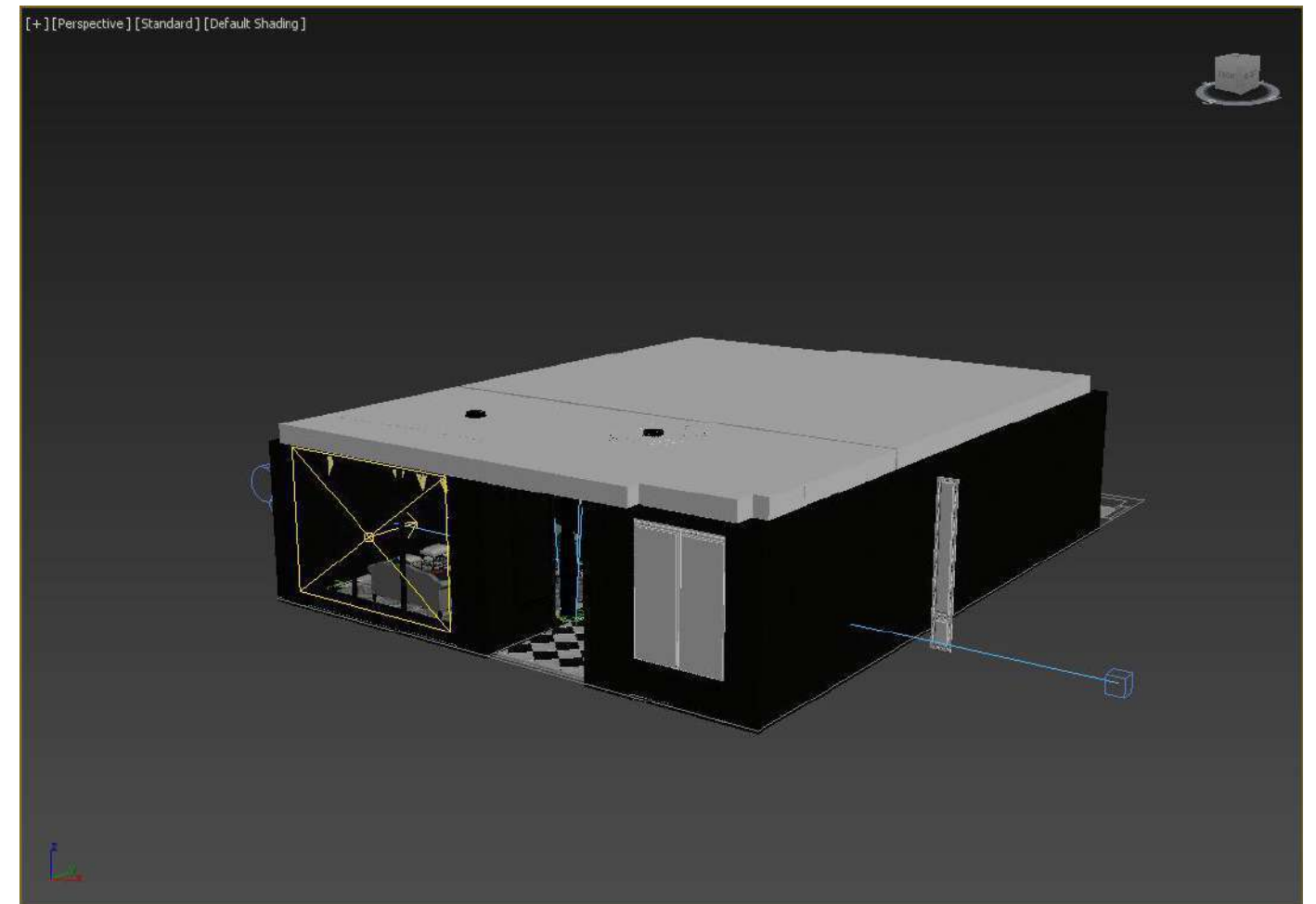
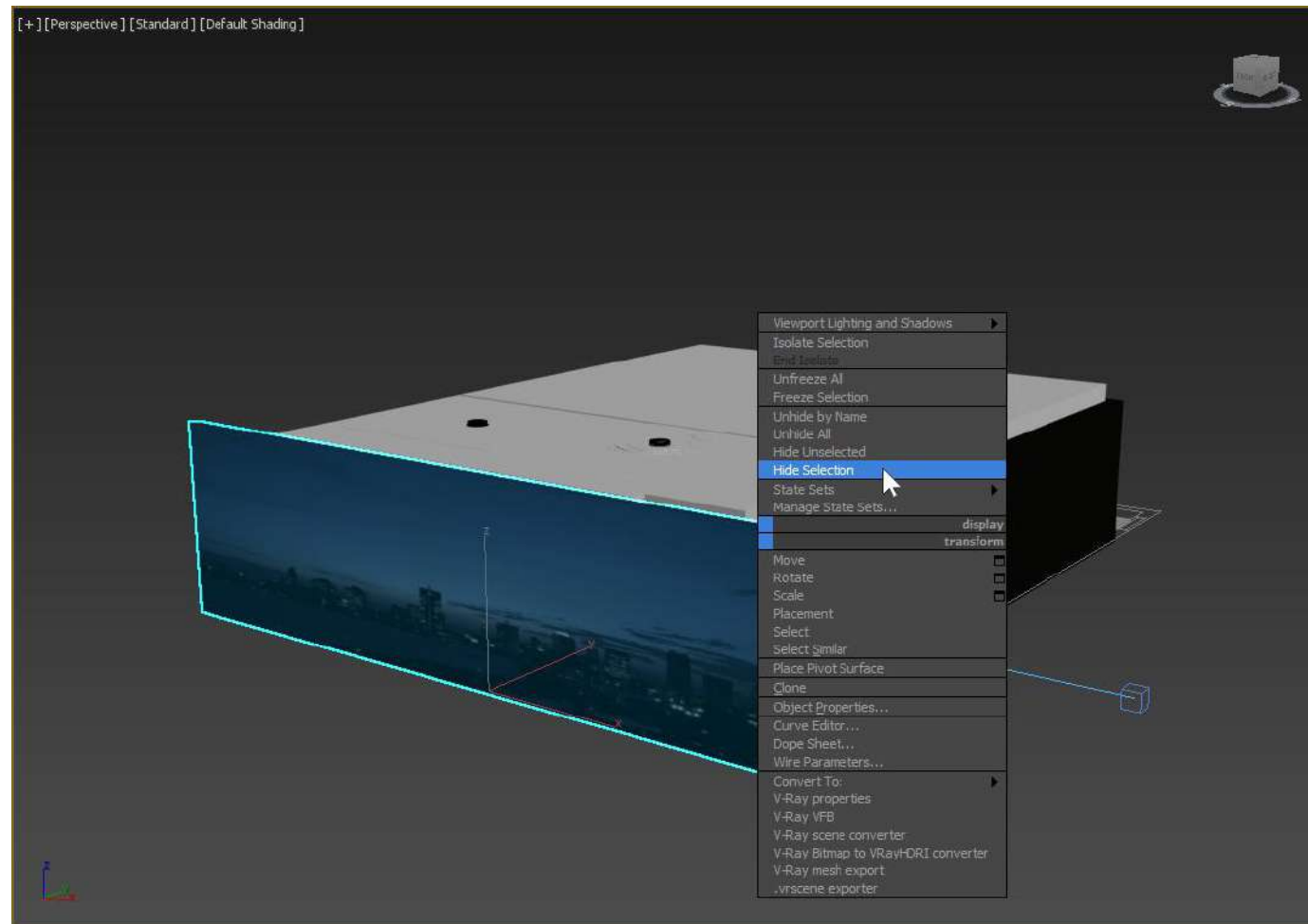


Now the screen much more better and brighter
And you can see all the object clearly

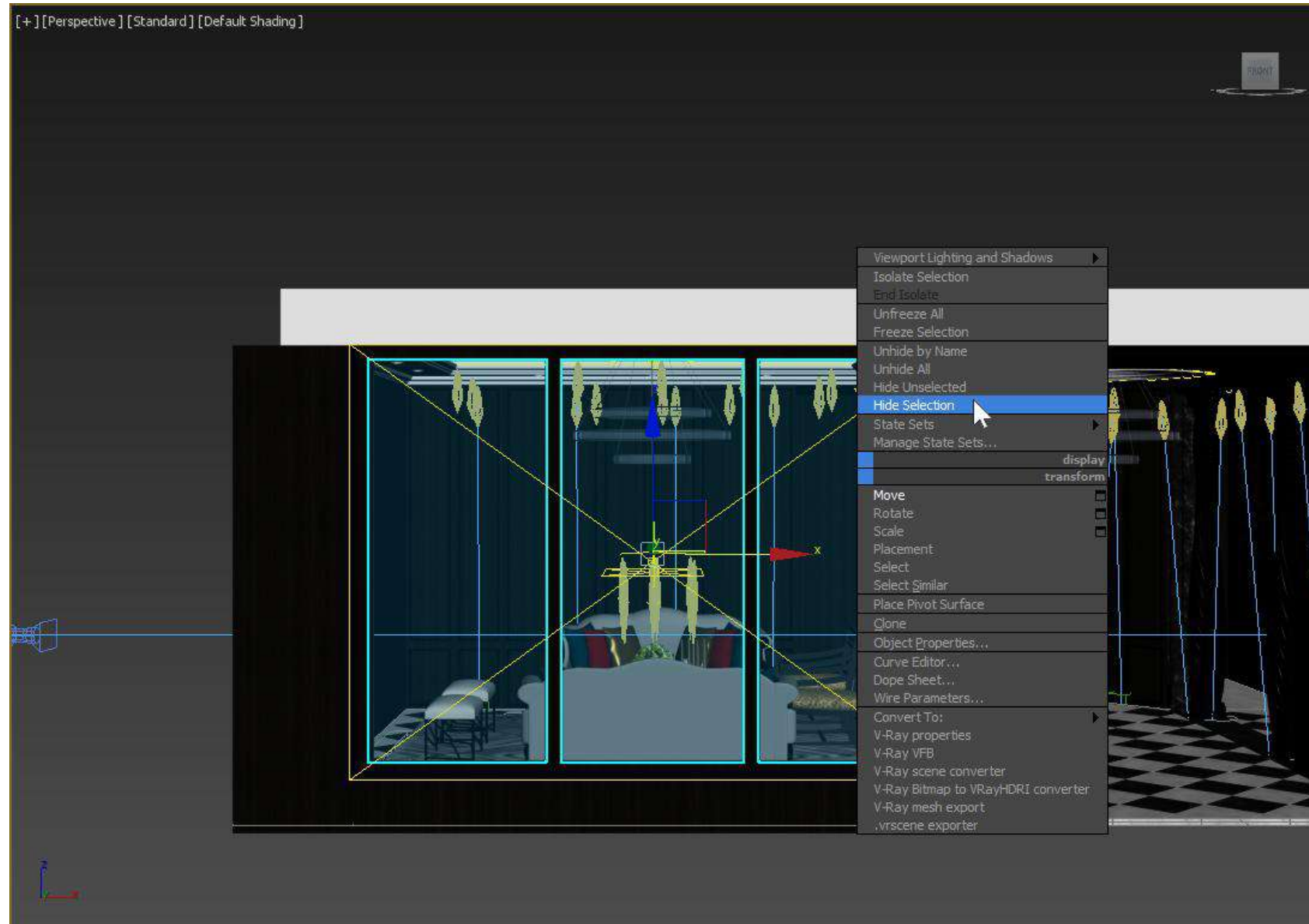
Press "P" to change into perspective view, so you can moving around, zoom in and zoom out



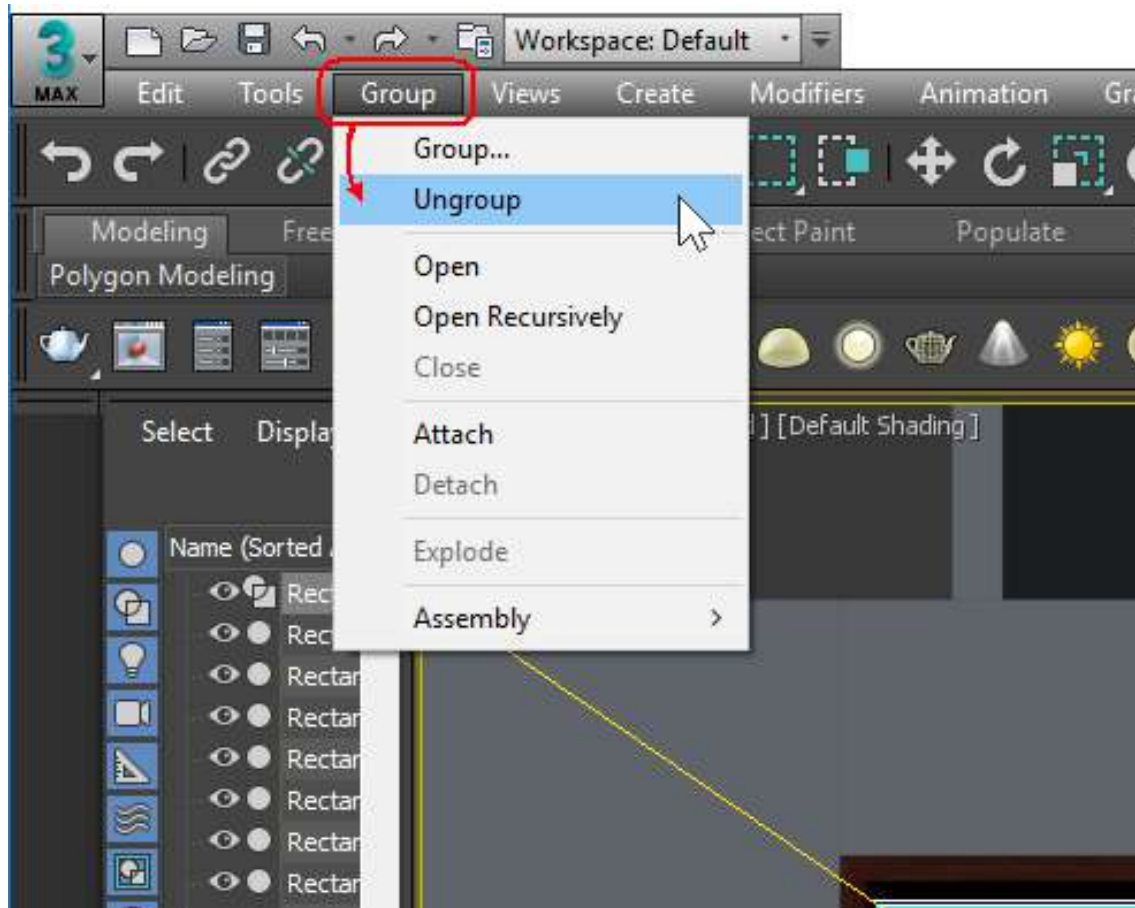
Zoom out, and we need to hide the "background scene" plane, to avoid blocking vray light



Don't forget hide the glass windows and glass doors
If you didn't hide them, the sun light unable come inside



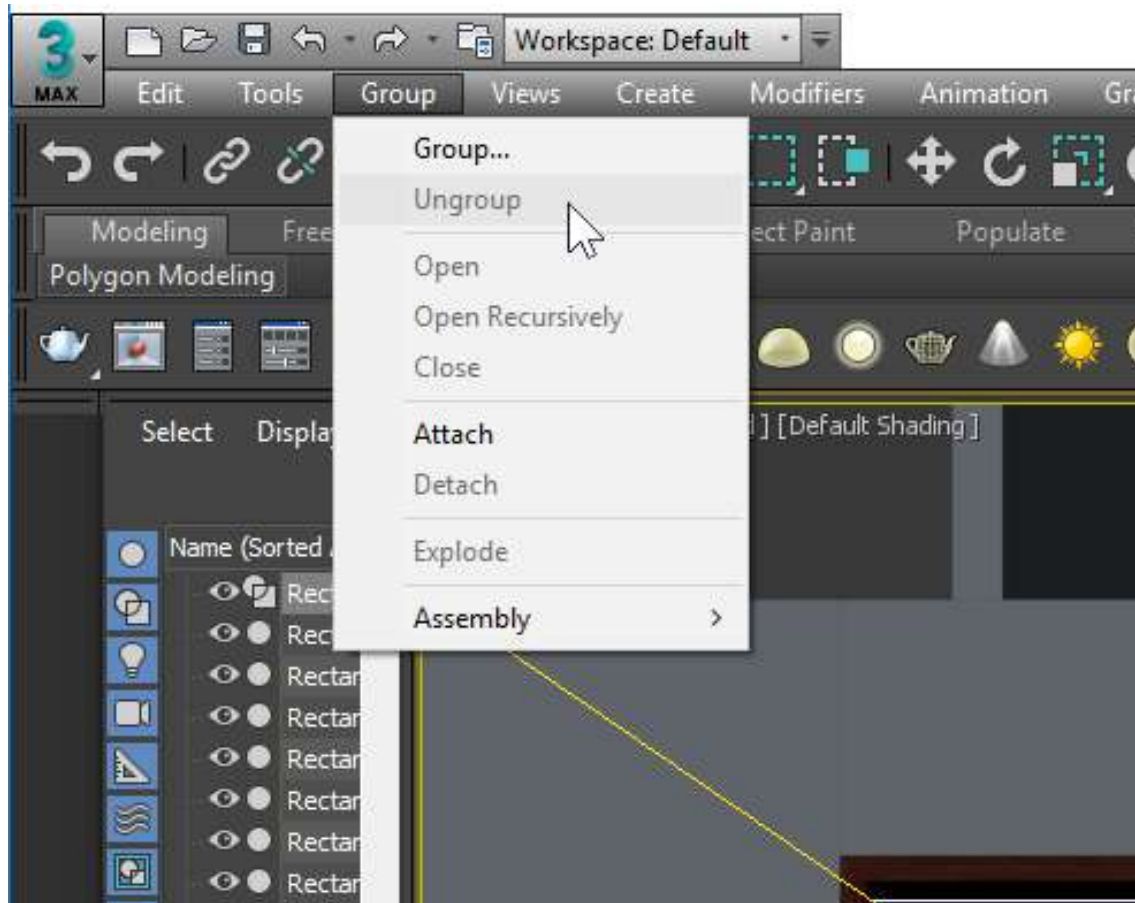
Be carefully, when you select glass panel, the iron frame and door grill might selected together
So you must ungroup them first before hide the glass panel



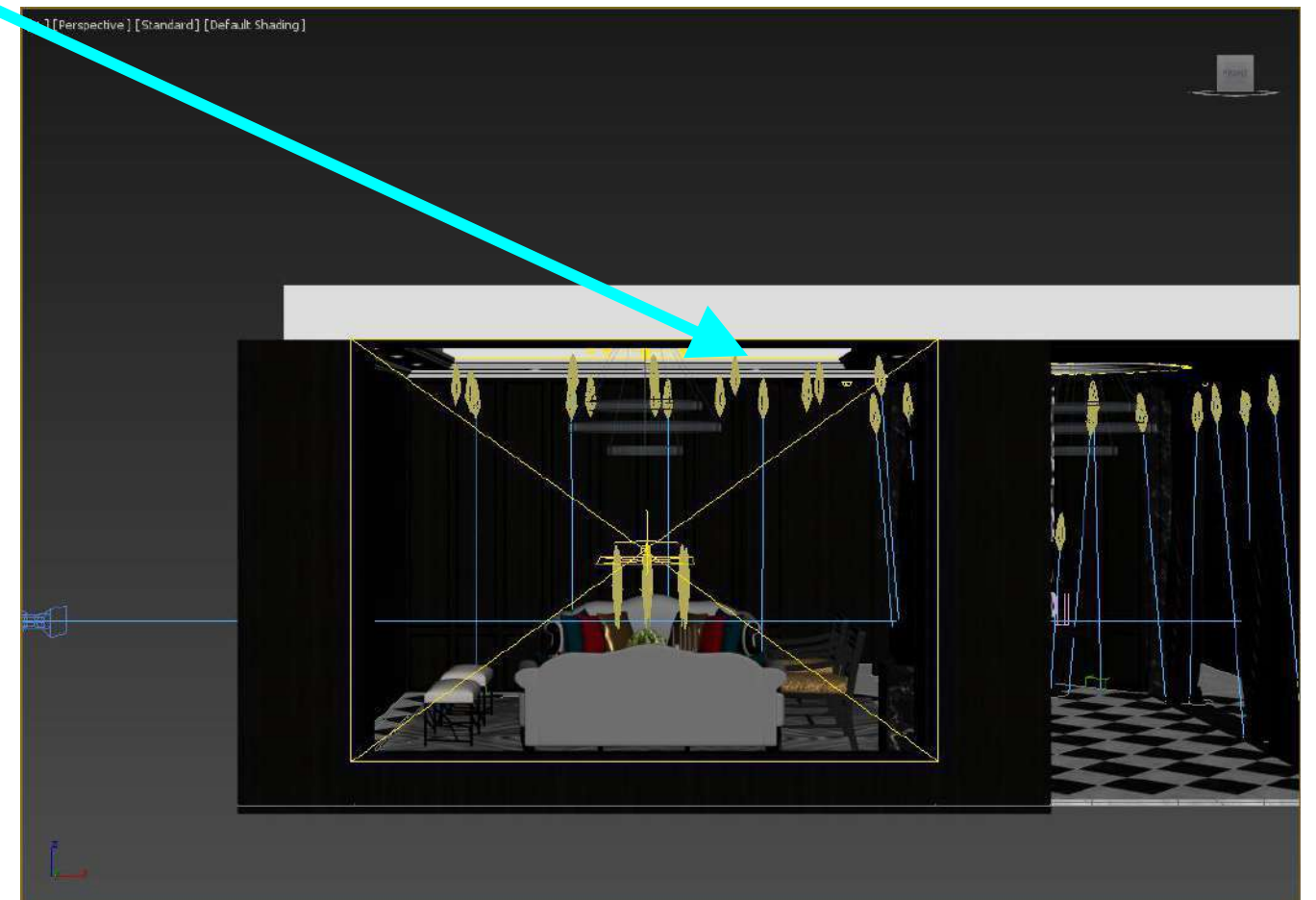
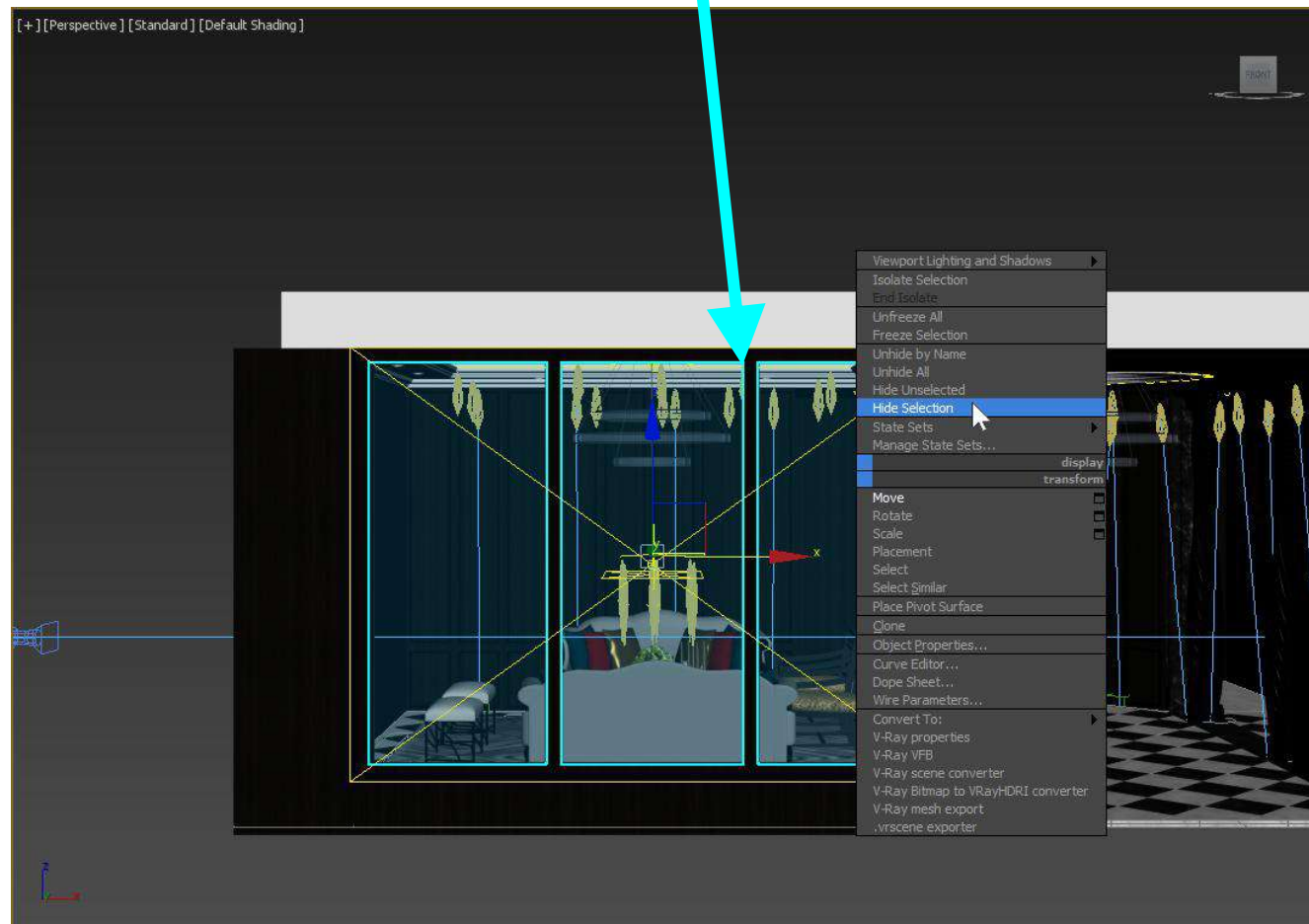
After ungroup, you can hide the glass

Notice:

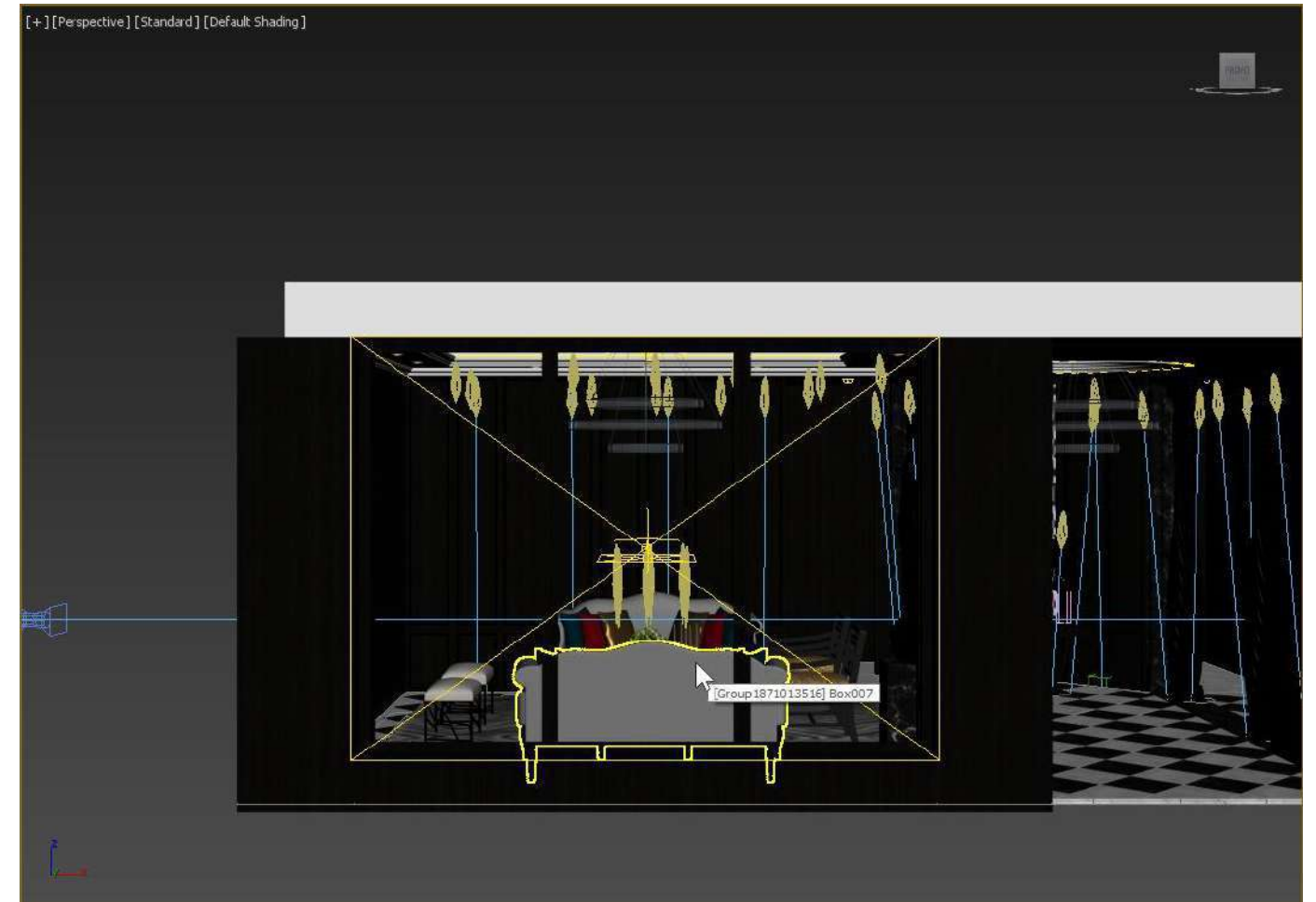
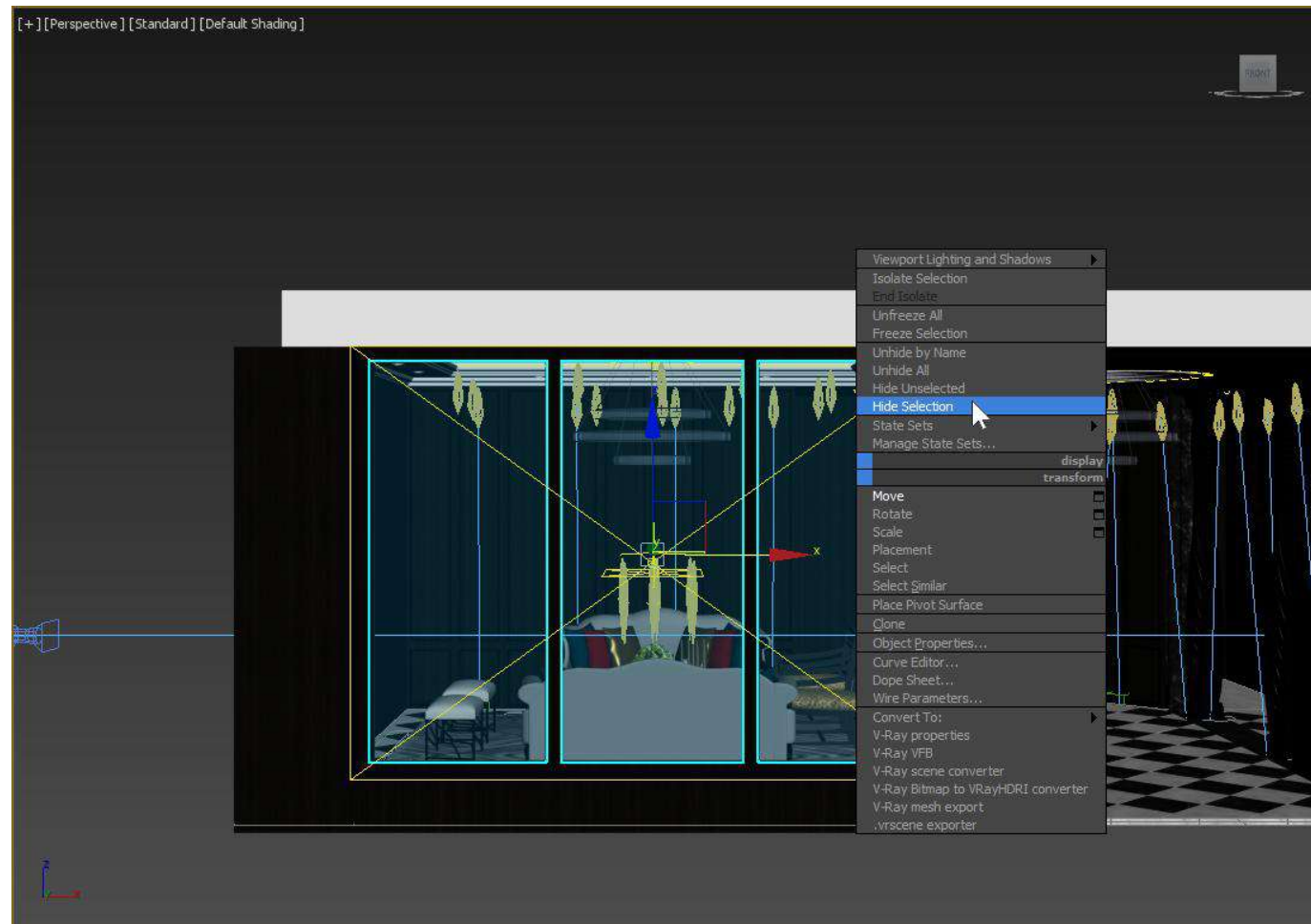
When you try hide the glass panel,
the window frame or door grill hide together,
then you must keep repeat click ungroup again



Look carefully, when we hide the glass panel
The window frame and door grill also hide together
This is the reason why we need to ungroup them

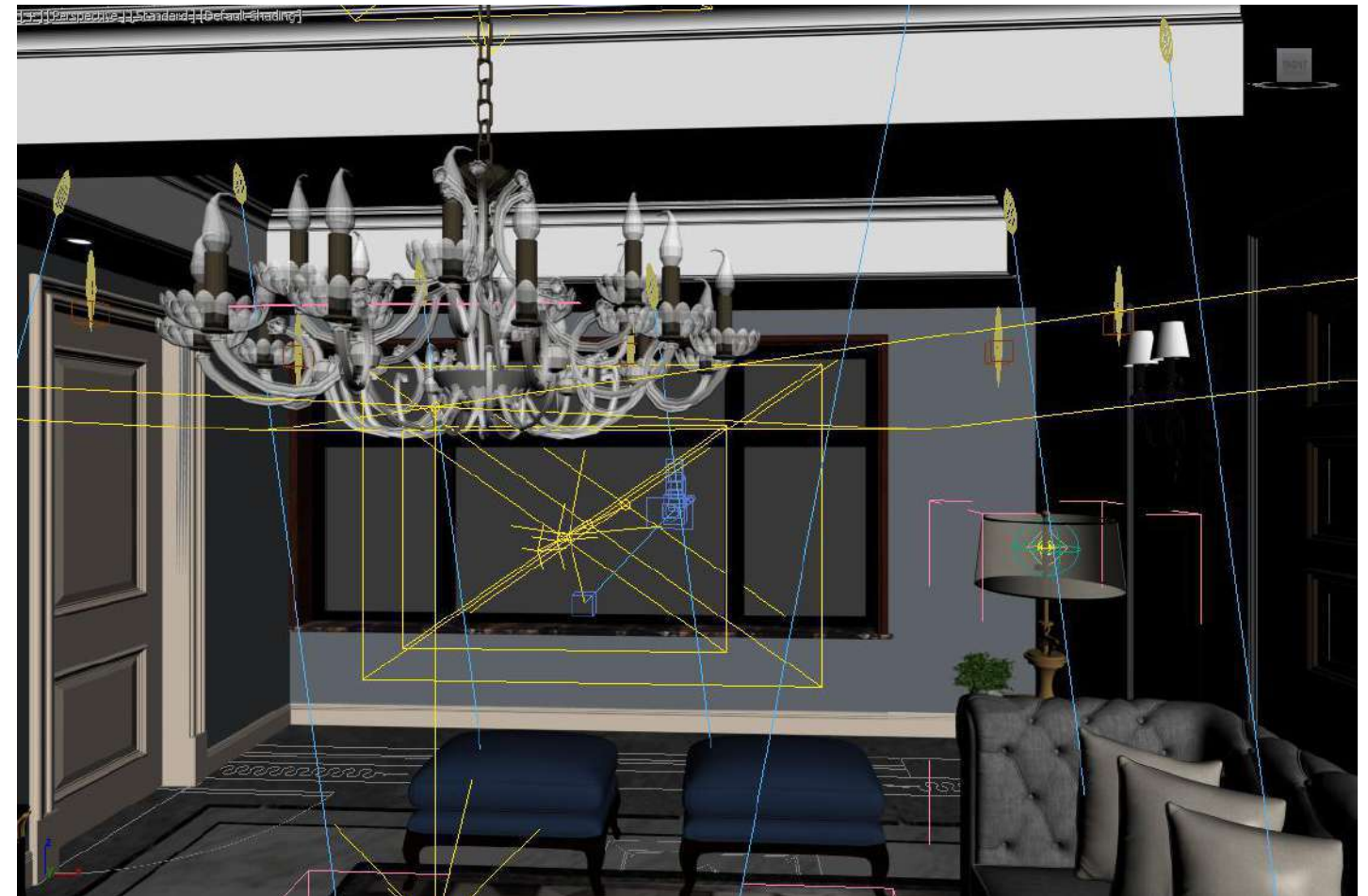
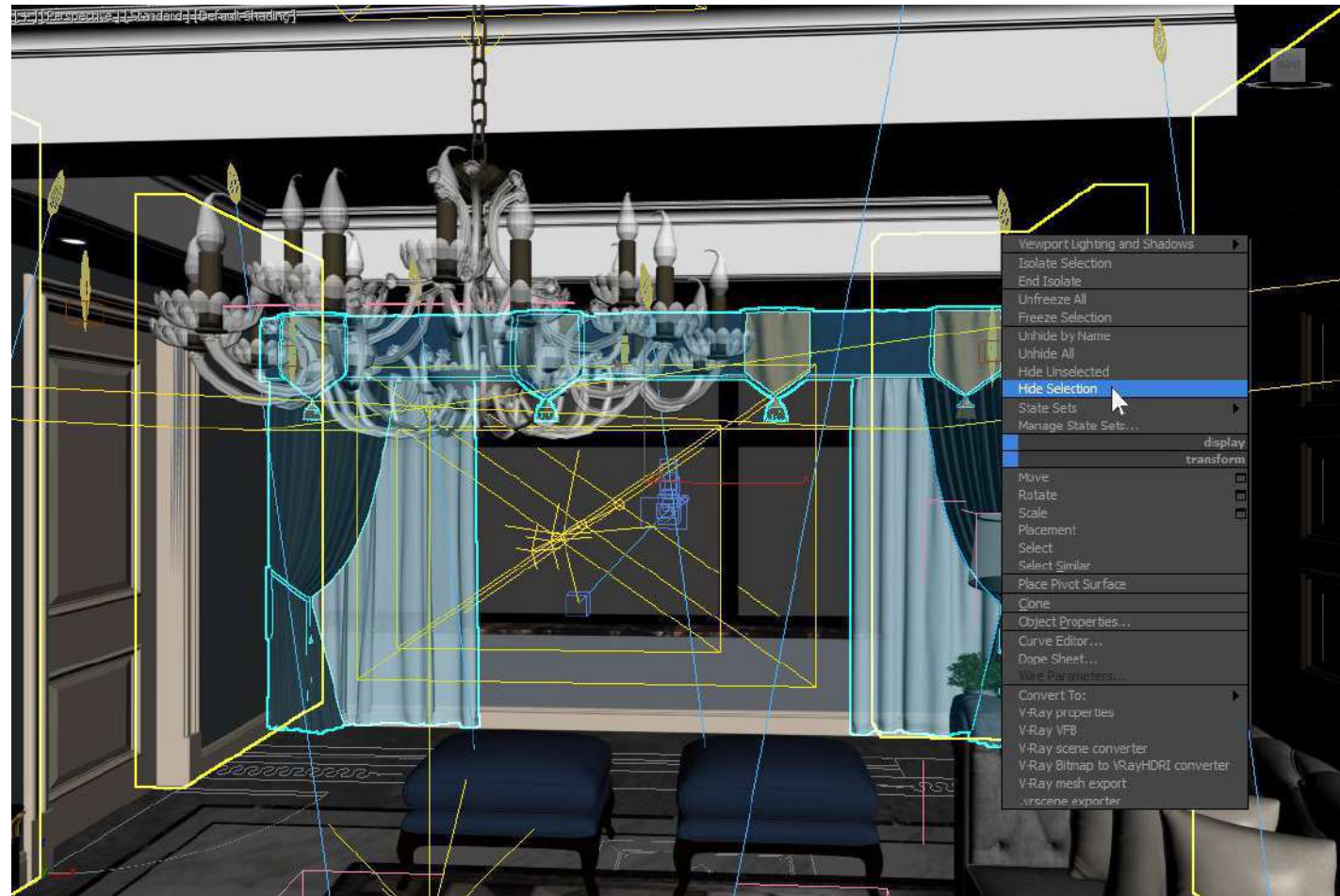


After hide all the glass panel, you can easily select any object inside there



Make sure hide all glass panel before continue the next step

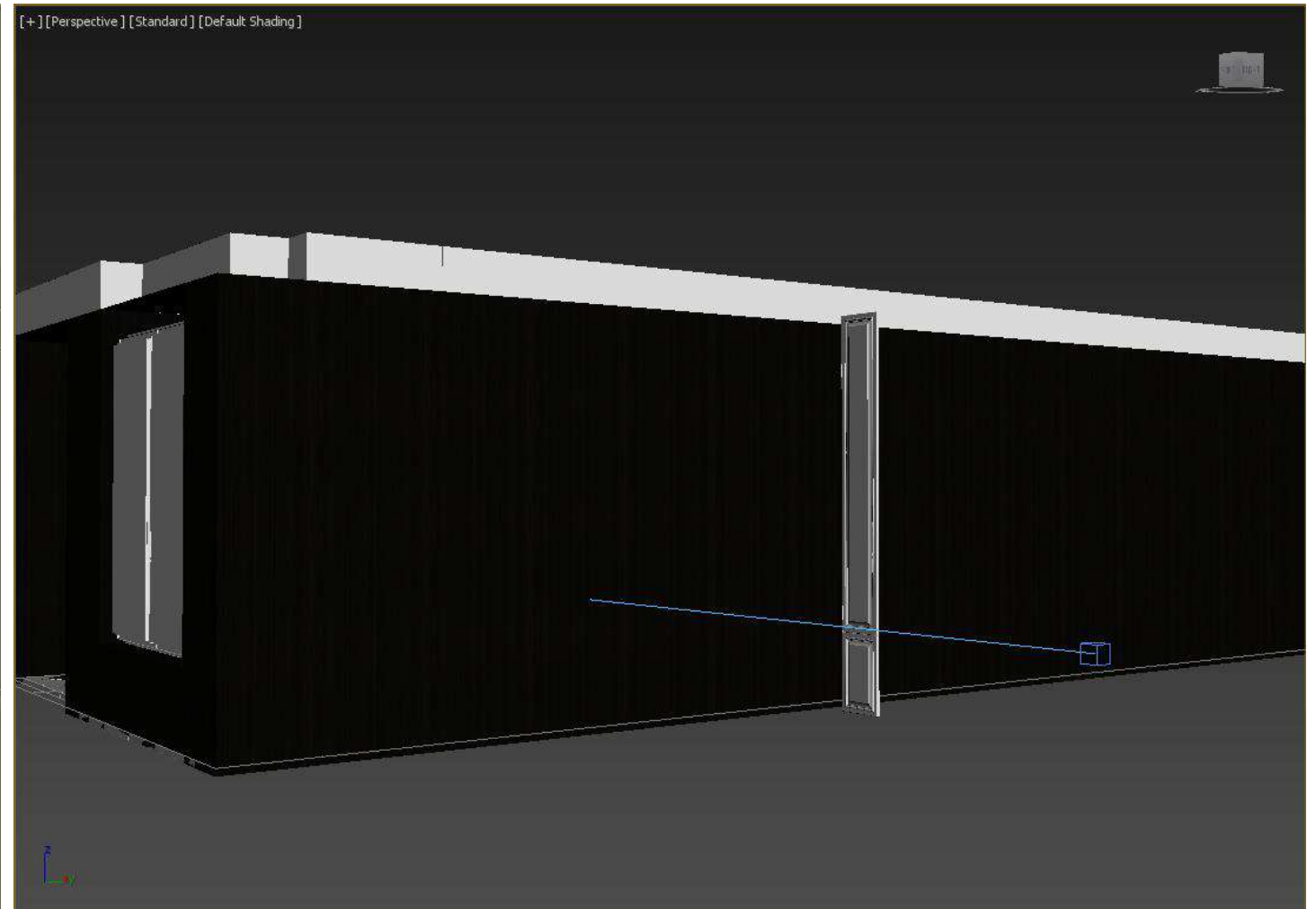
If there is curtains, you need to hide them too
Because curtains will block the light



Check around them and make sure all glass panel and curtains have been hidden

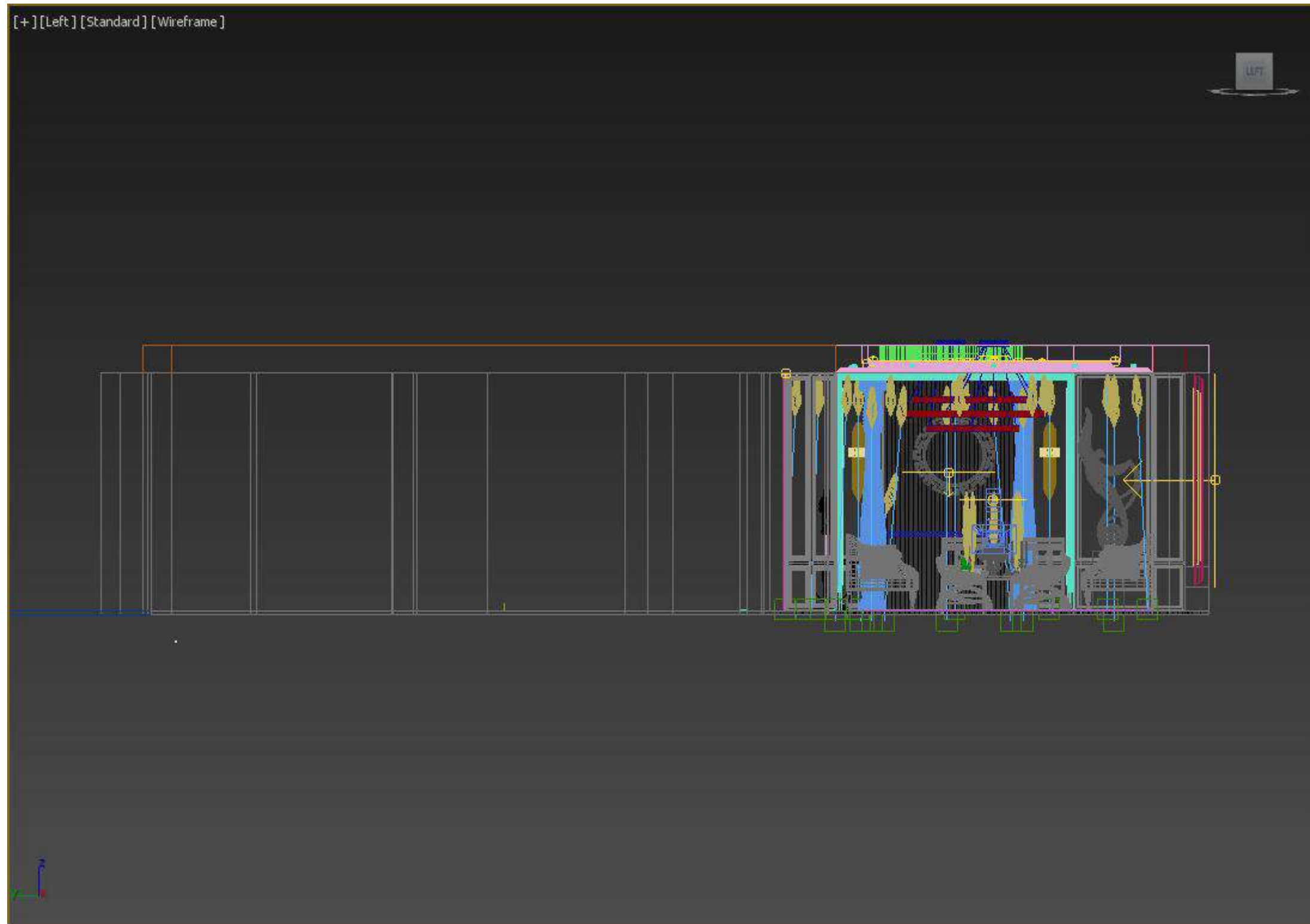


Left side doesn't have glass panel or curtain

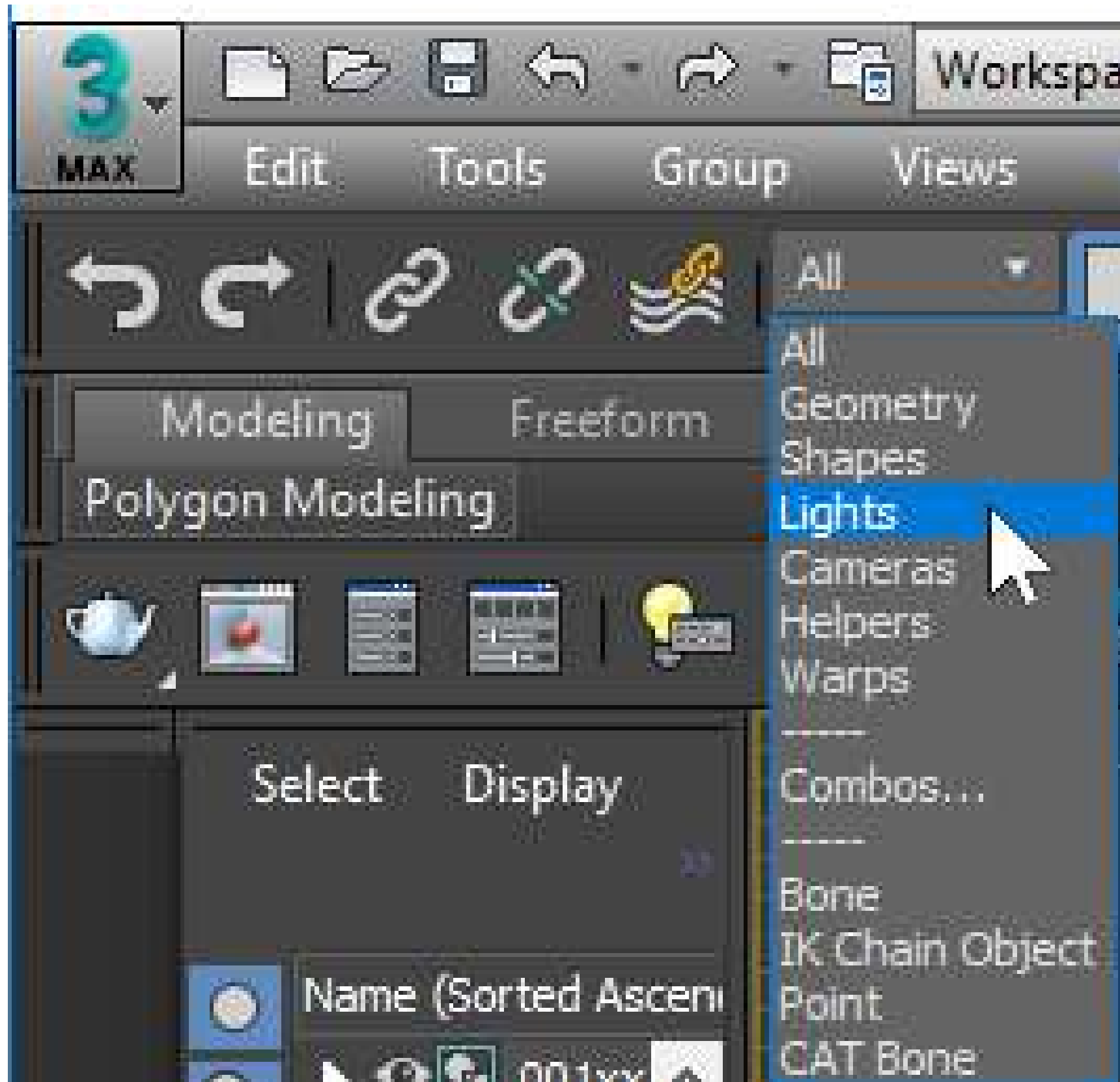


Right side only have wooden door

Next, we press "L" to switch left screen and press "F3" for wireframe

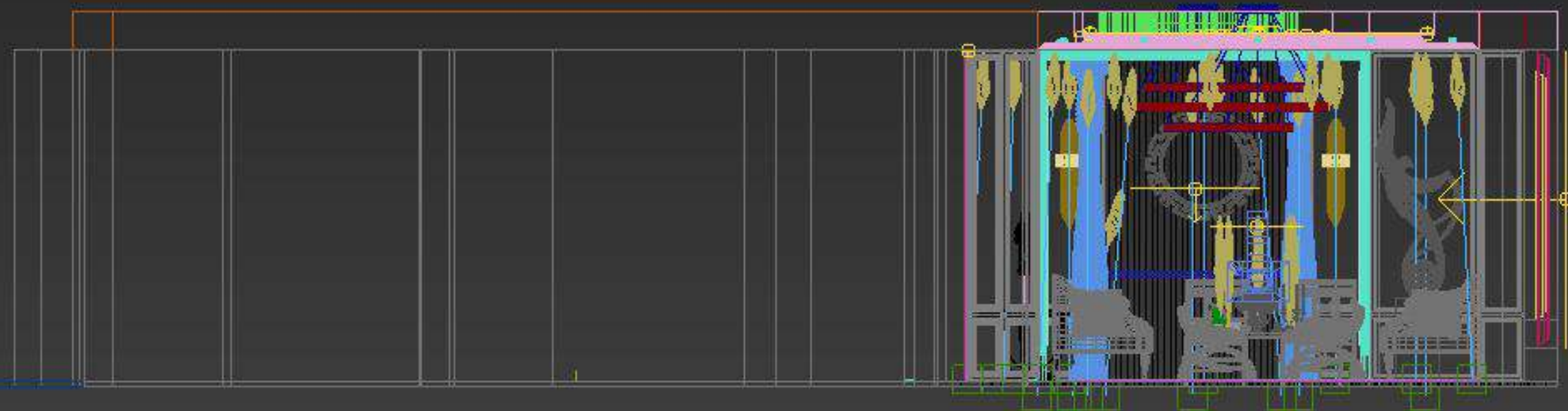


After switch to wireframe, we need to delete all the lights



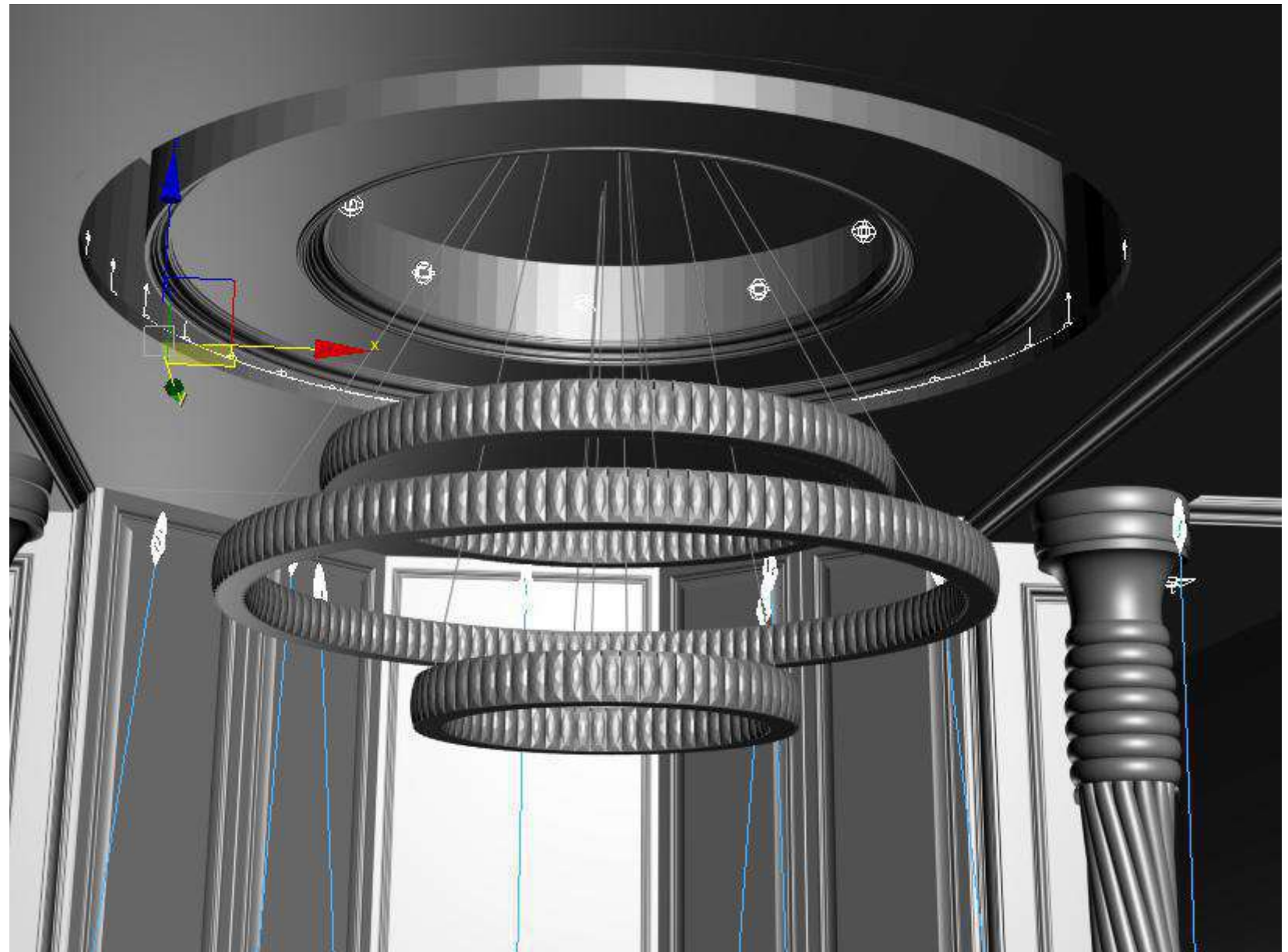
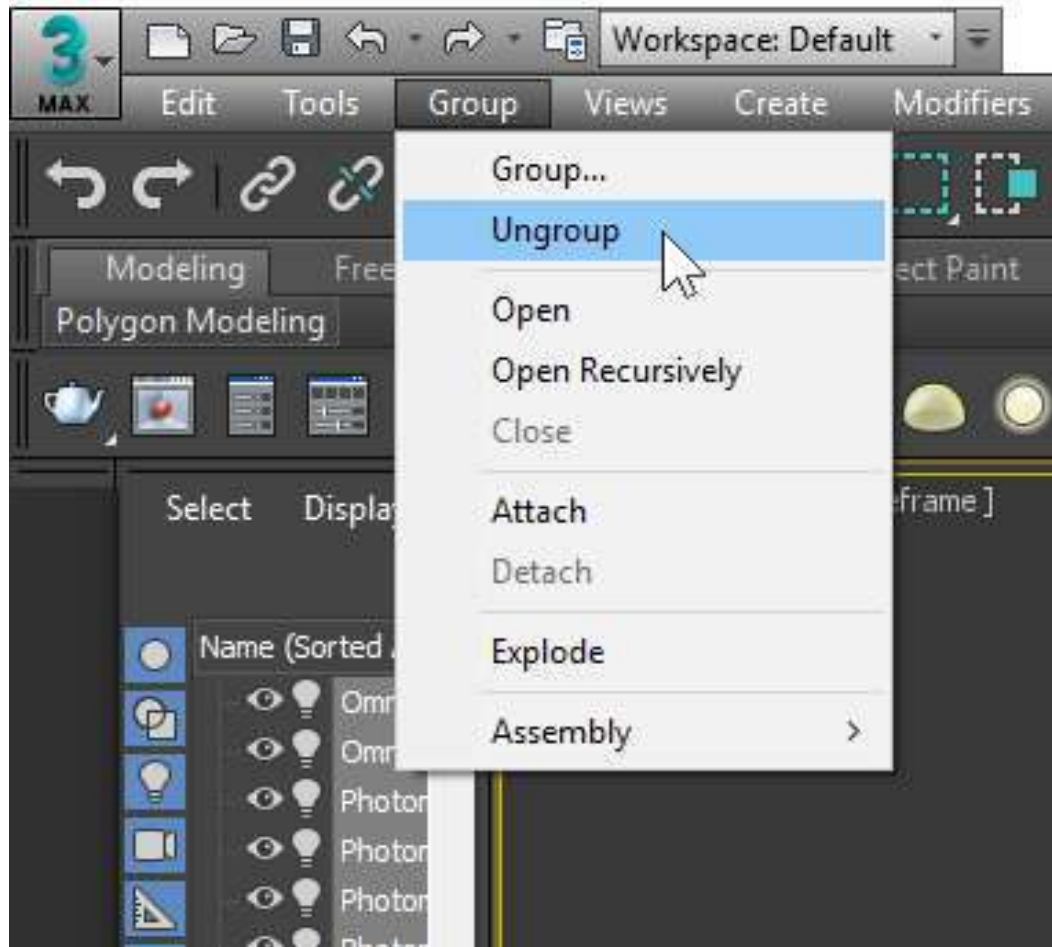
Select Lights

[+][Left][Standard][Wireframe]



Select all



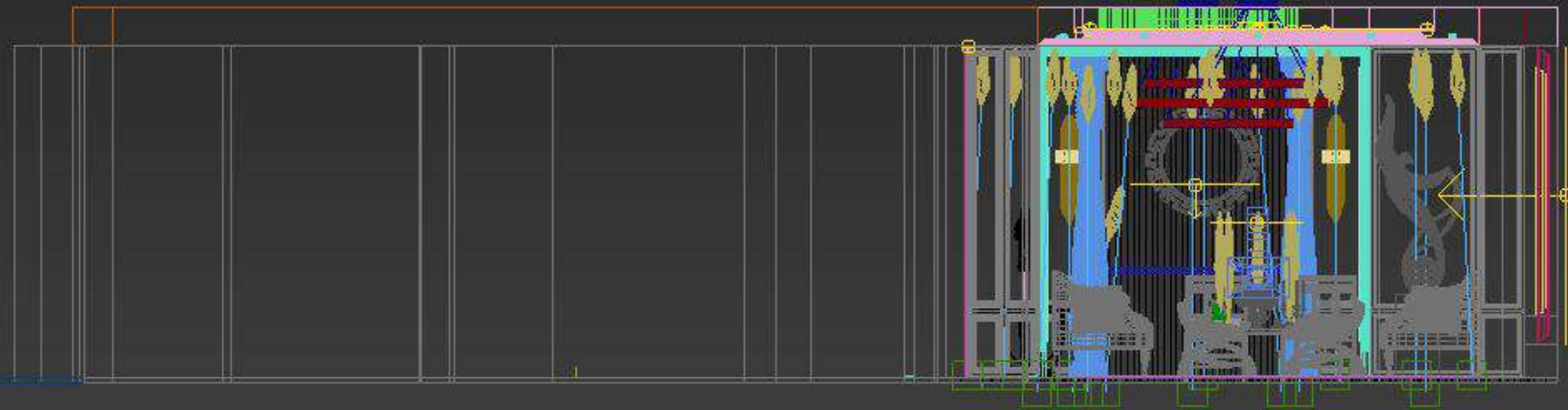


Select all and ungroup

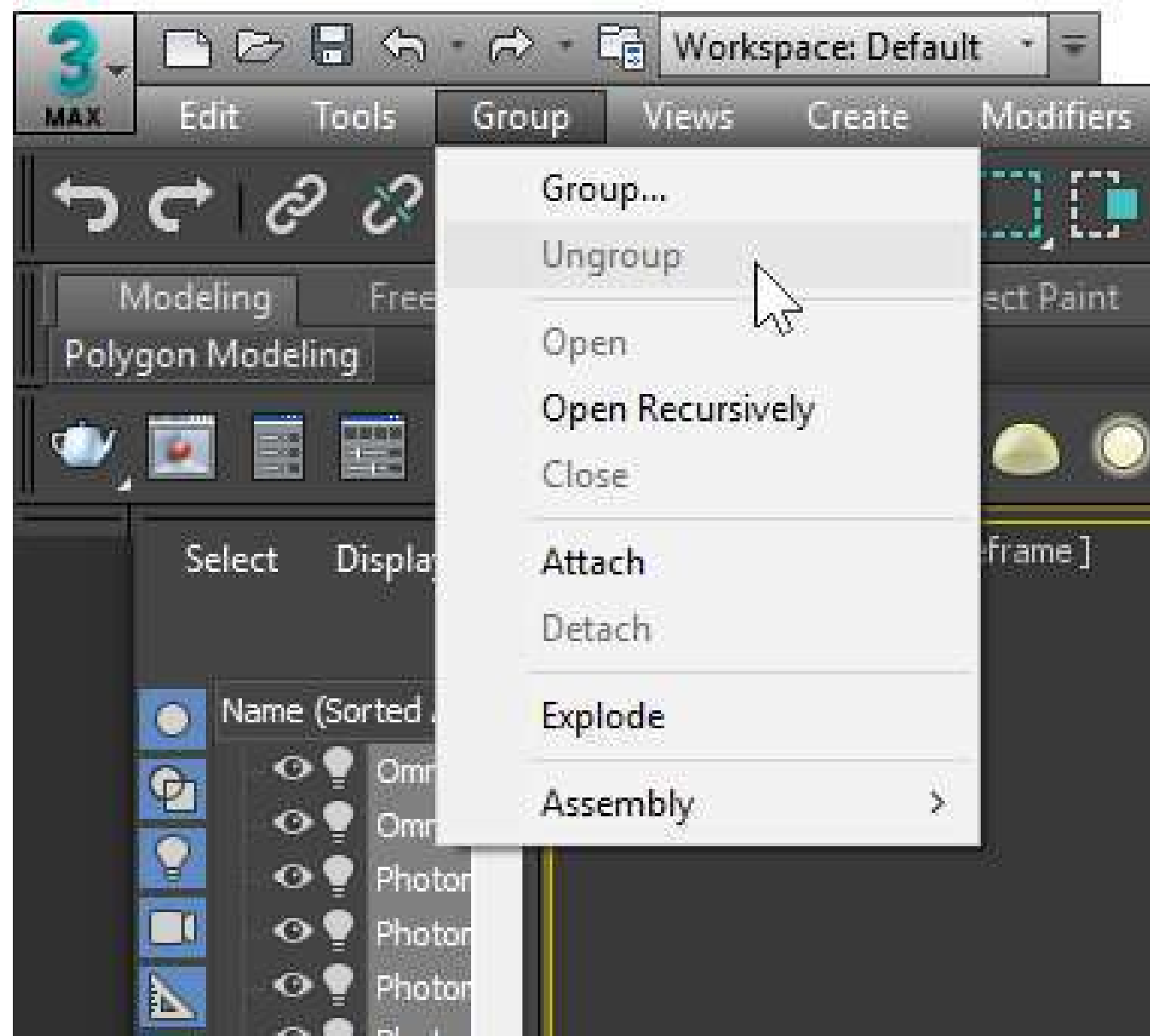
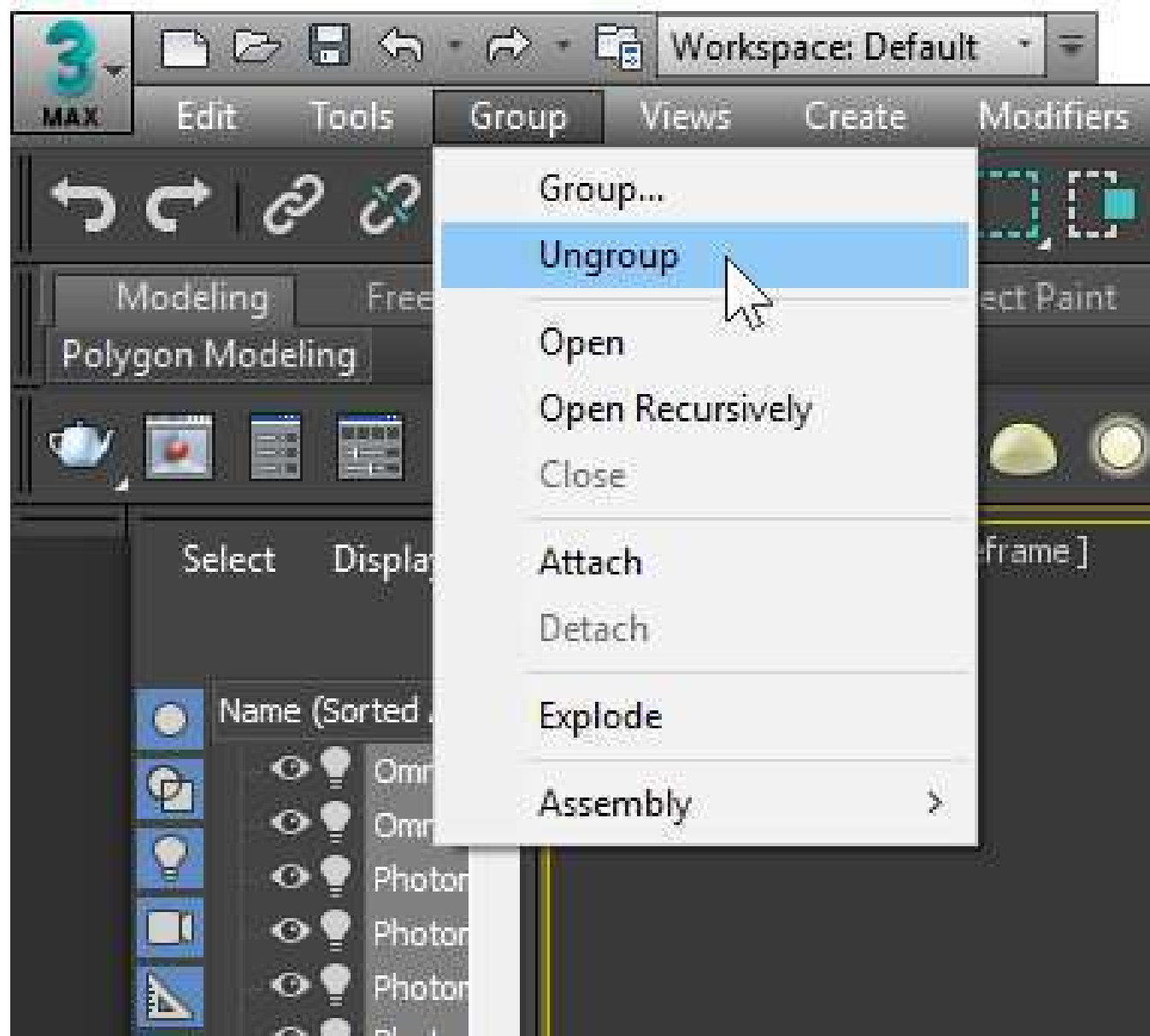
Why we need ungroup?

1. Some of lights might group with lamp model
2. Other objects like television, they might be have lights
3. After ungroup them, we need to delete all the lights

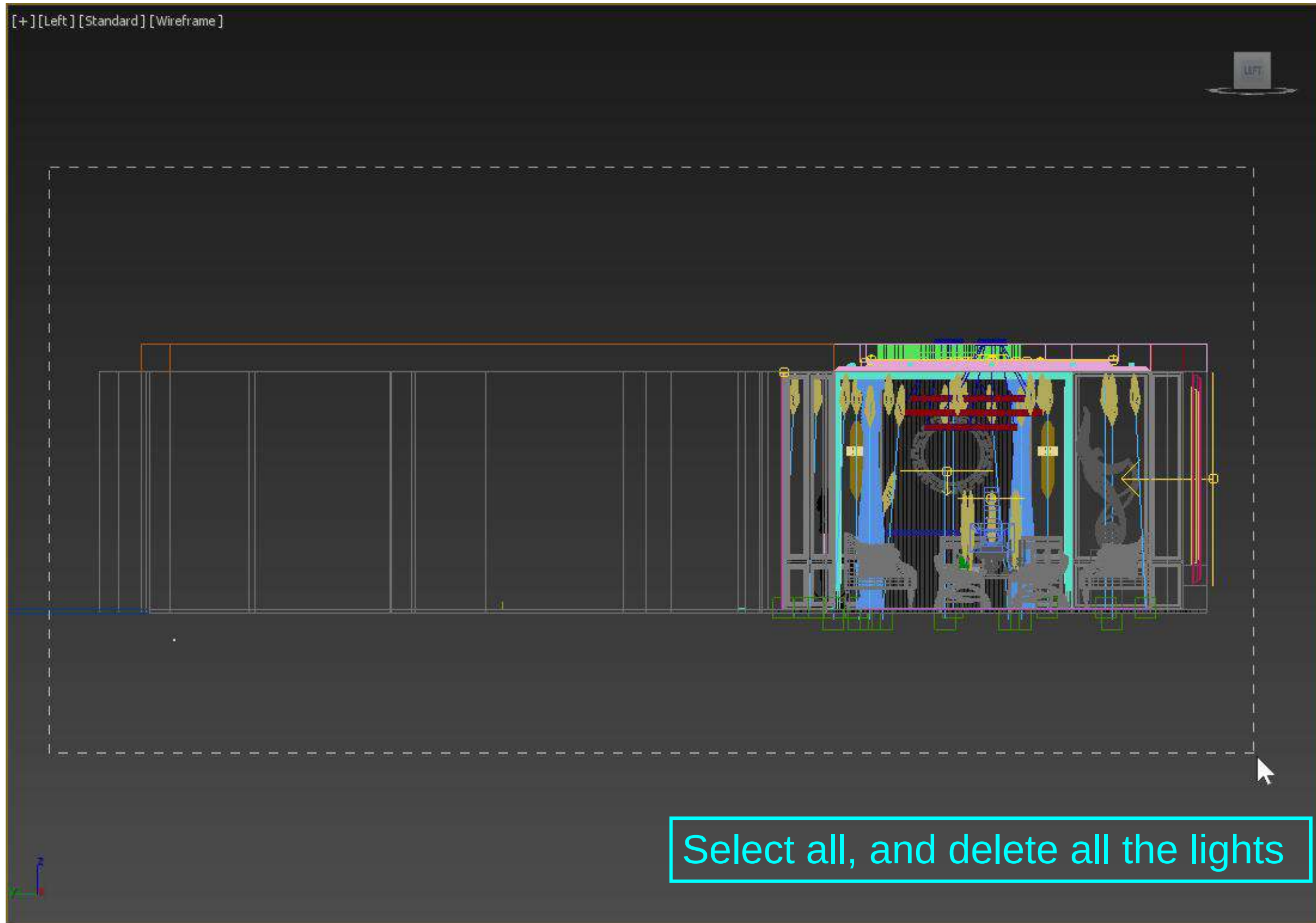
[+][Left][Standard][Wireframe]



After ungroup, we need to select all object again

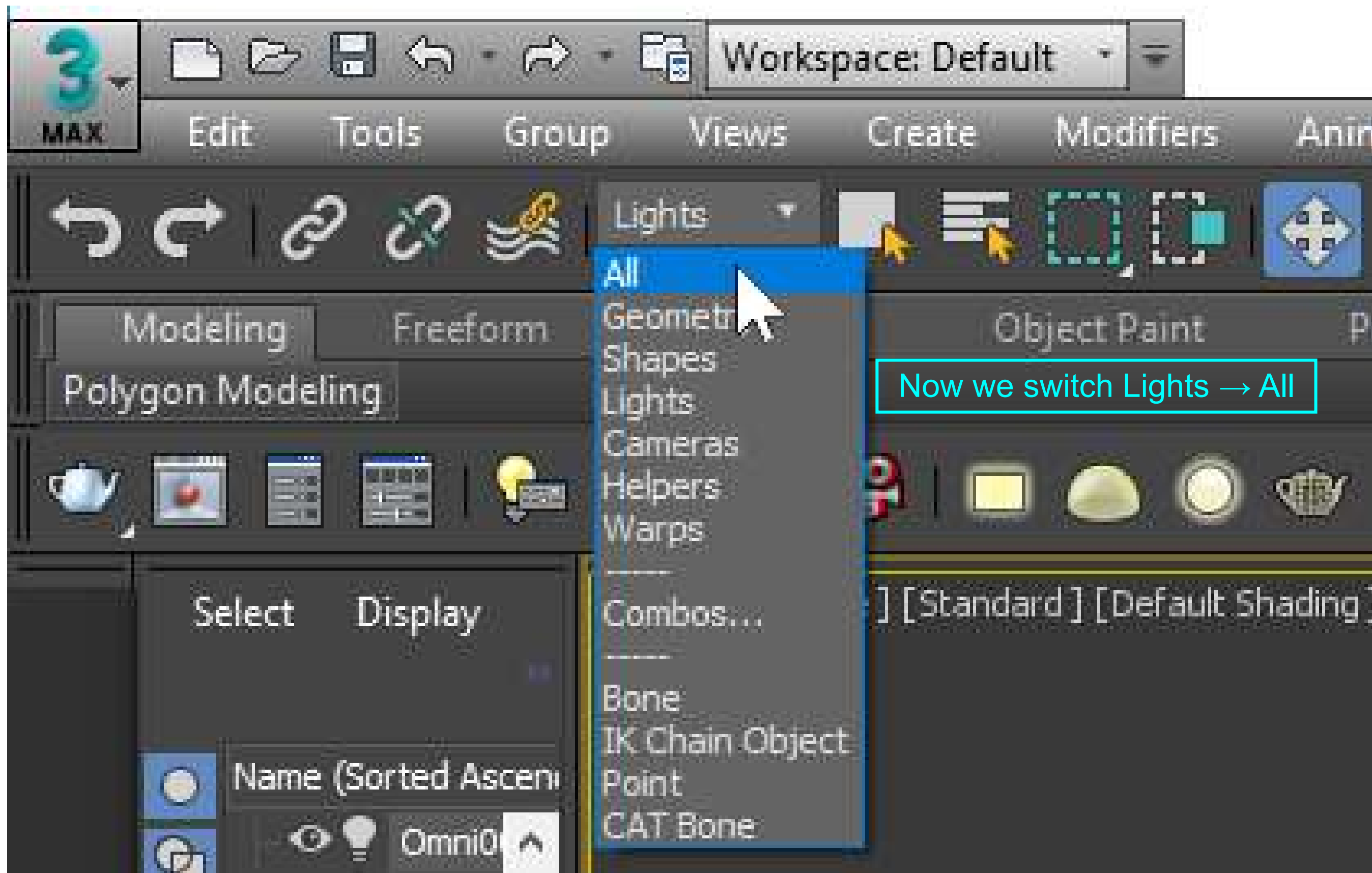


Repeat the same step, until it cannot ungroup anymore

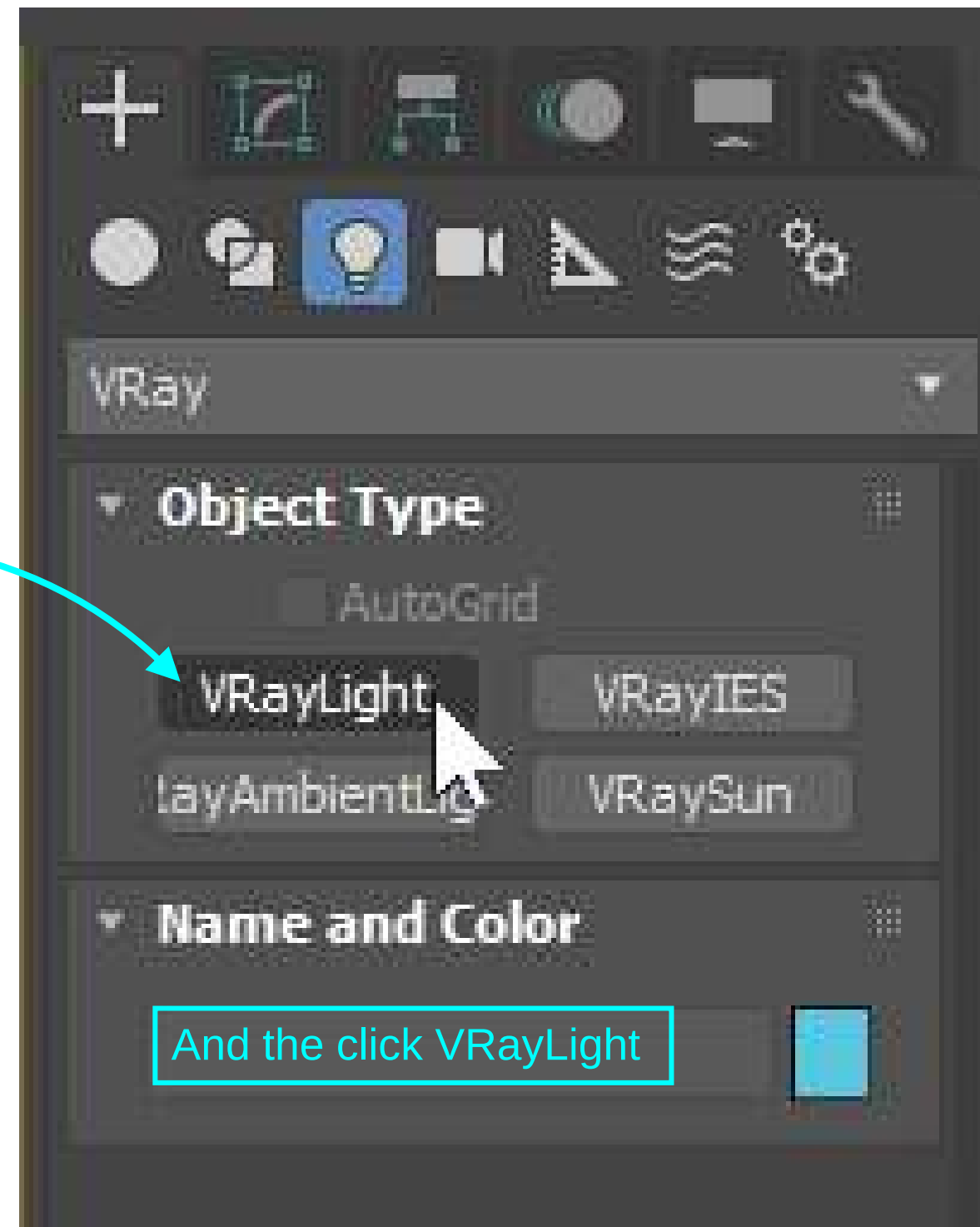
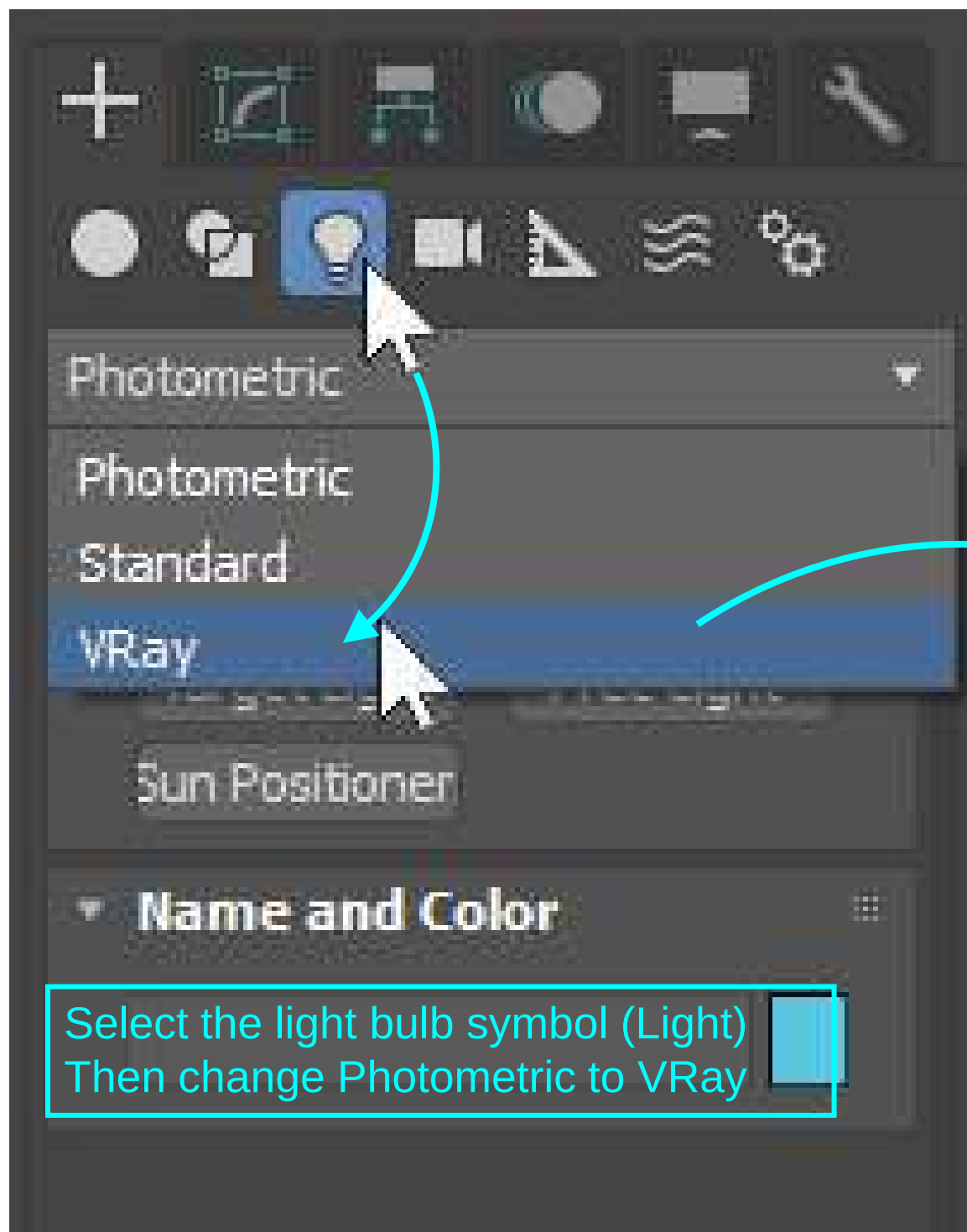


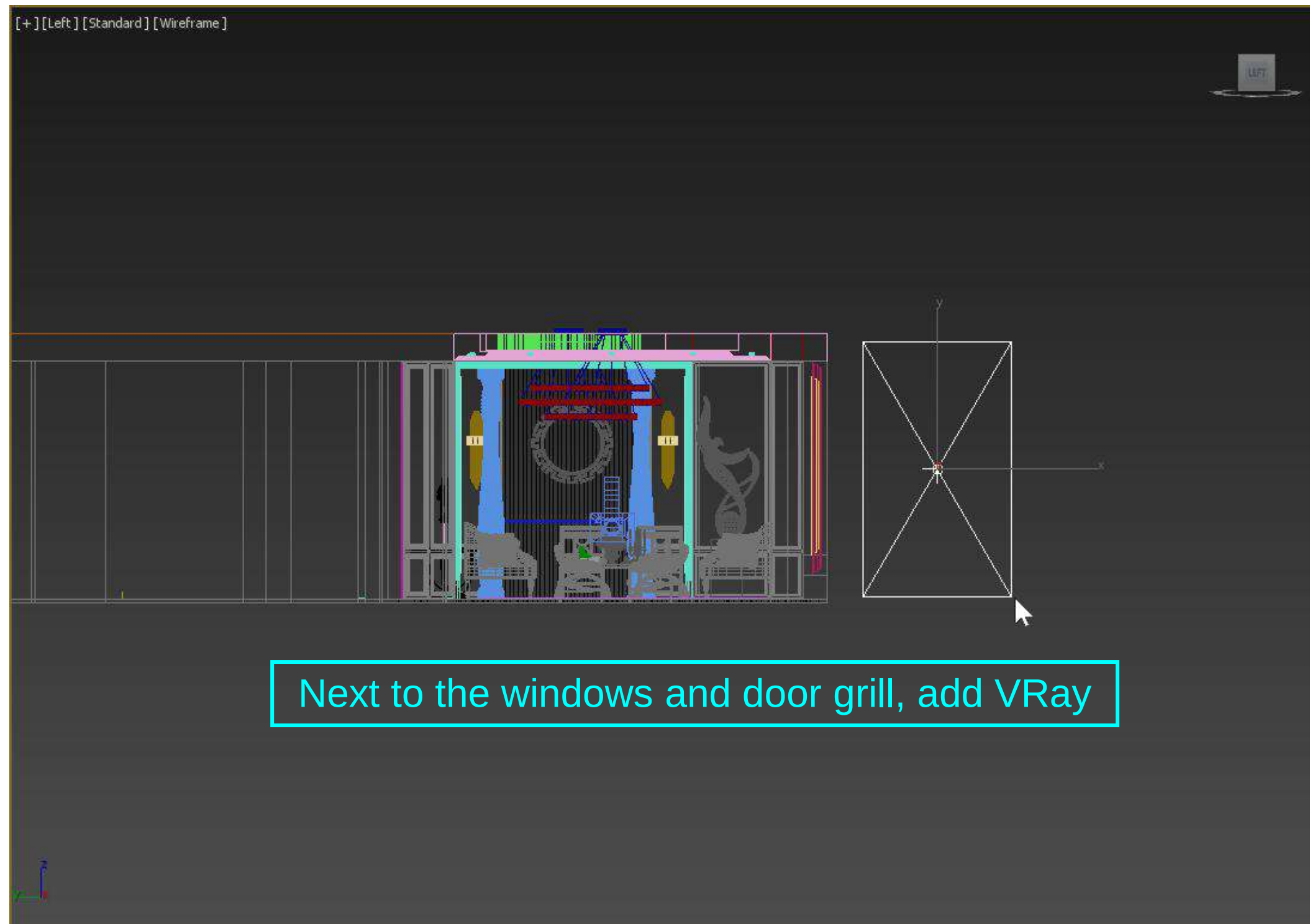
Why we don't hide them?

Because when we going rendering, the hidden light will be rendering too



Now we need add V-Ray lights

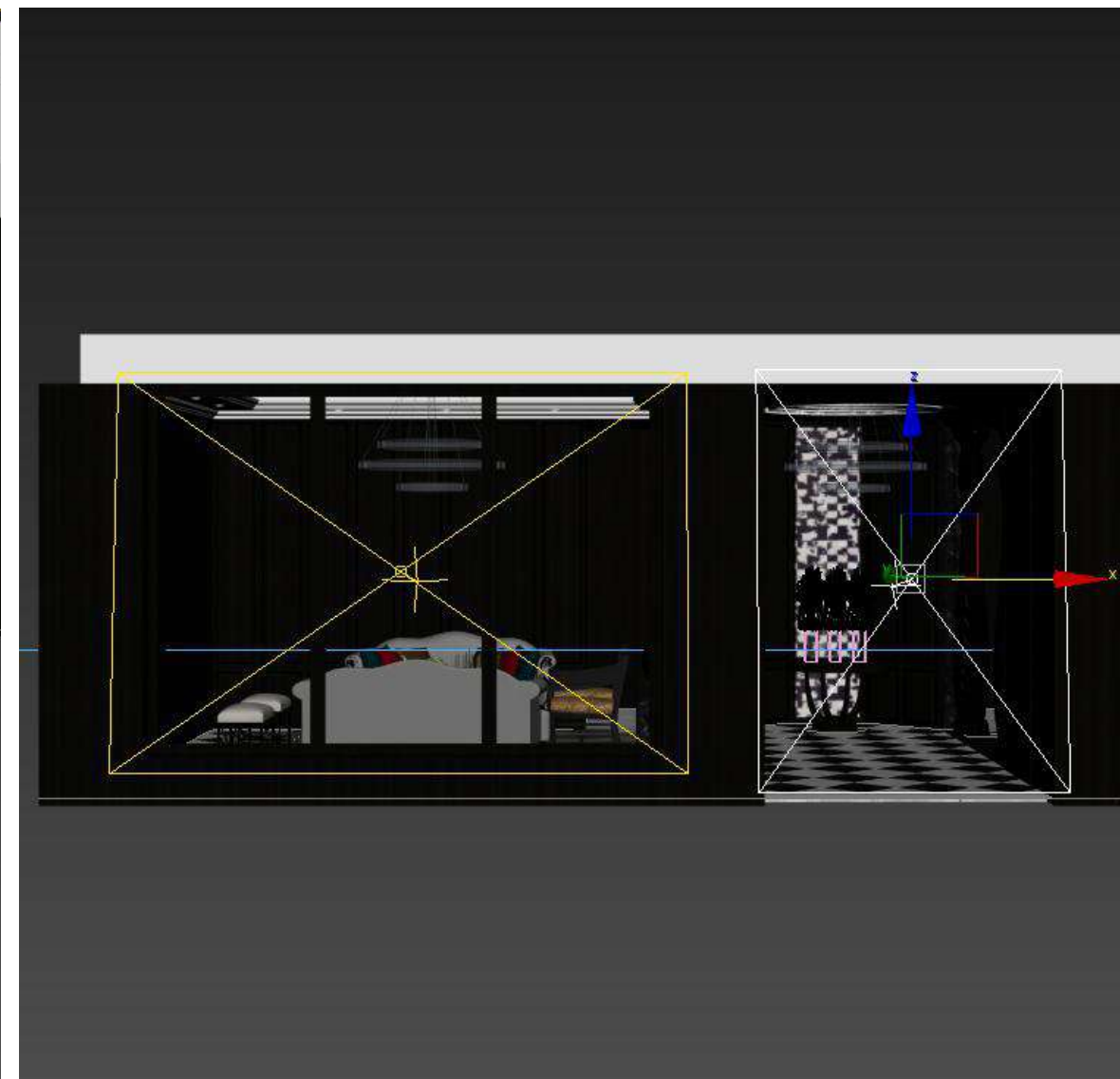
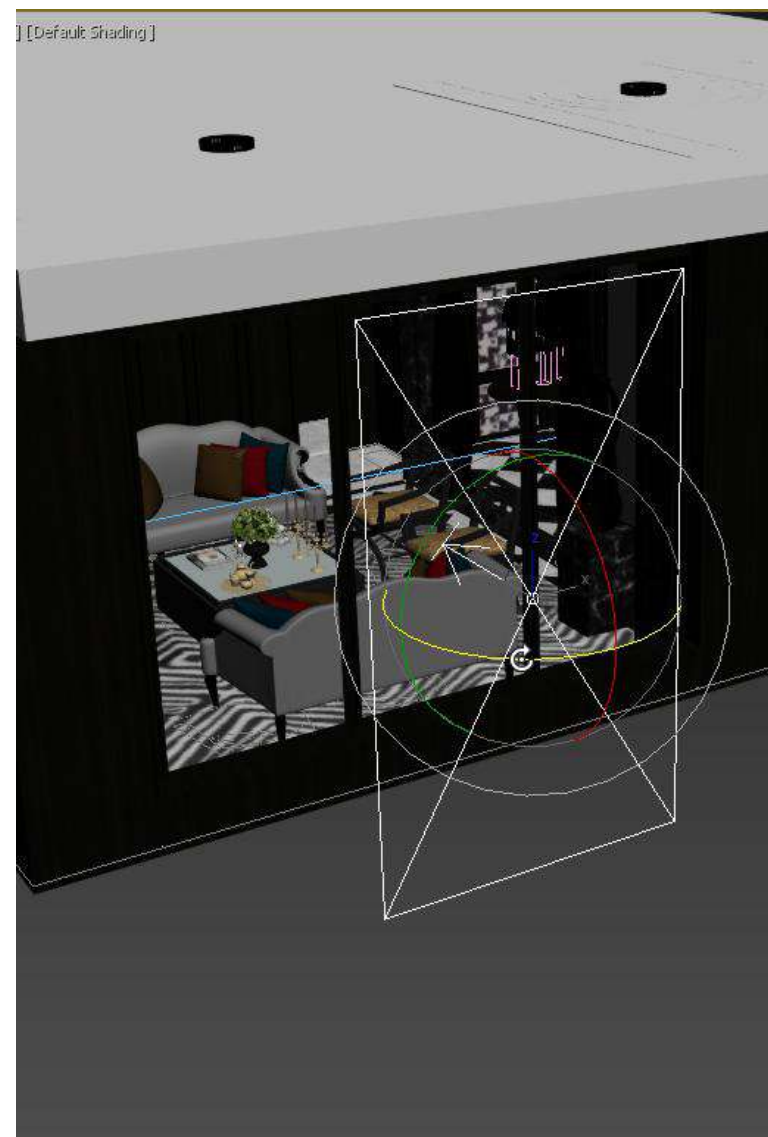
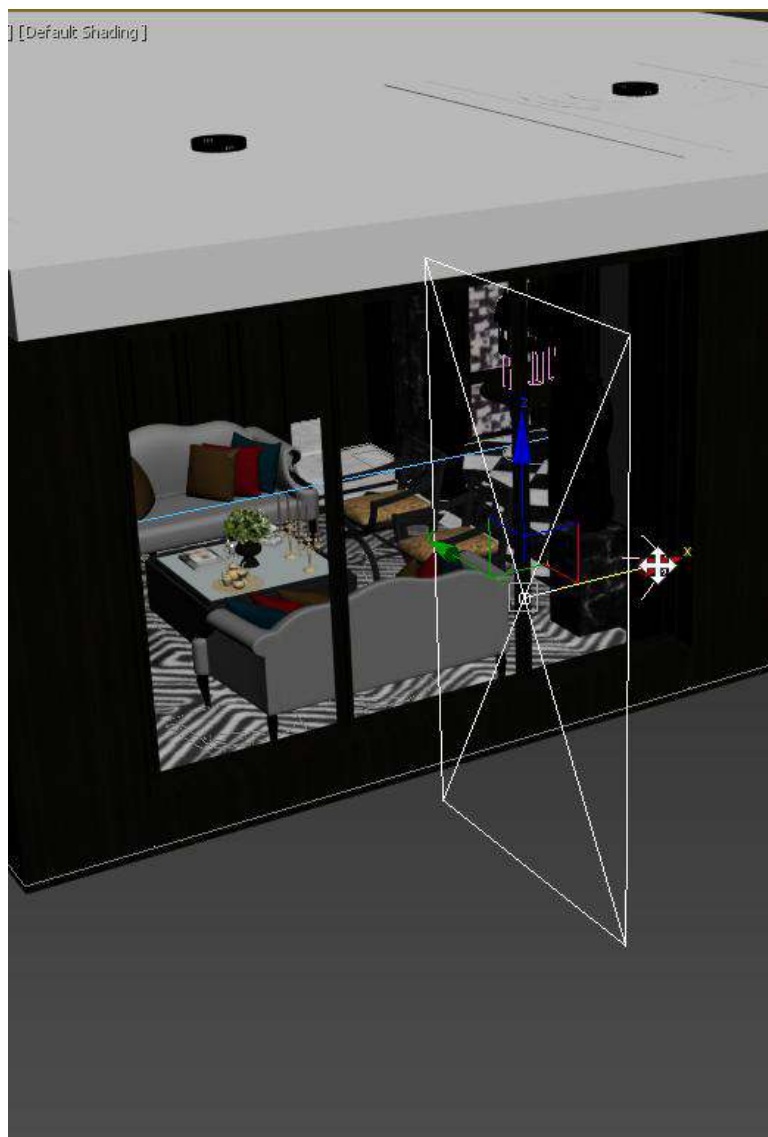




Make sure switch to orthographic mode before add V-Ray

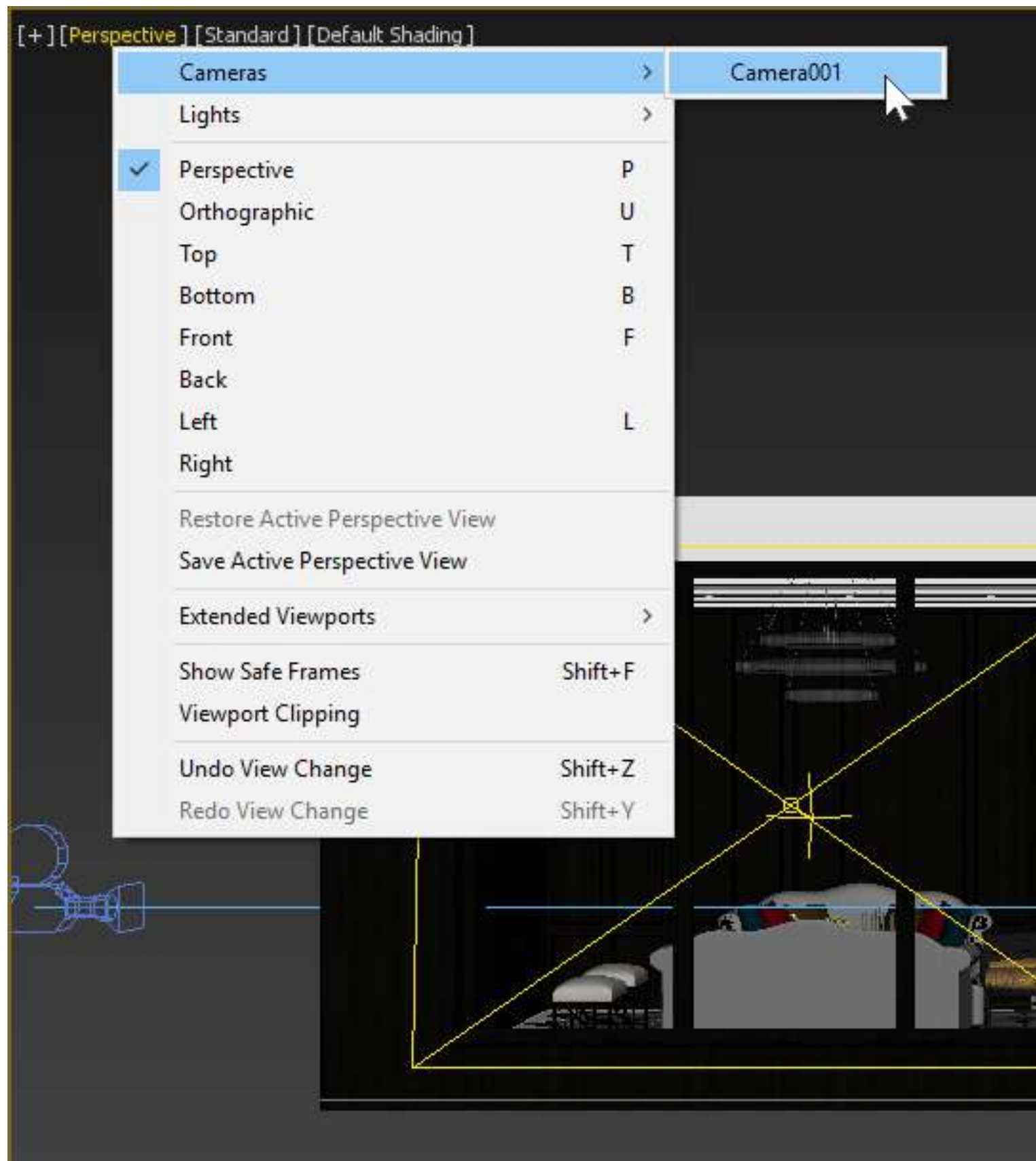


Next we switch to "P" (Perspective) for adjust and rotate V-RayLight

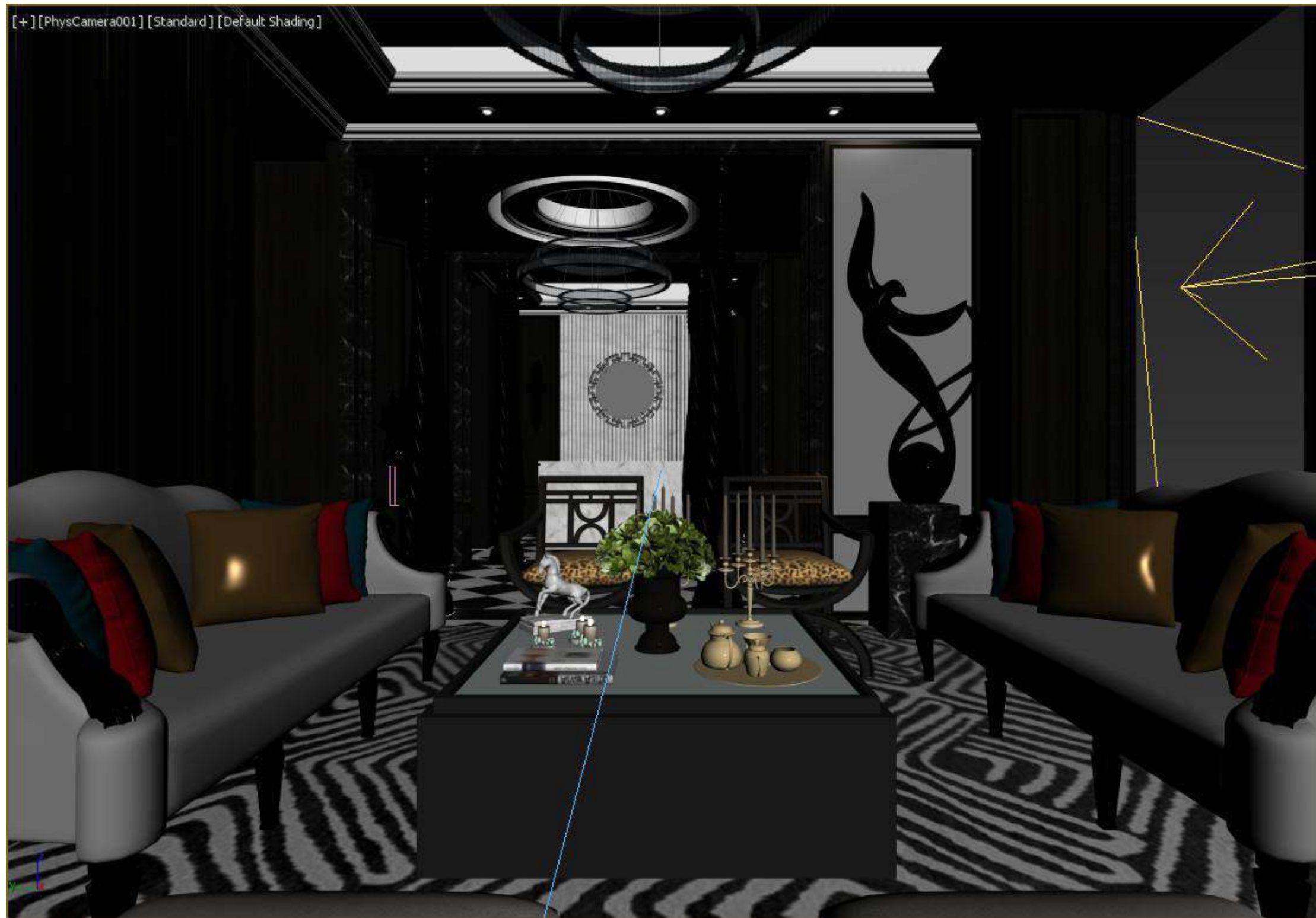


Adjust, rotate and rescale size VRayLight

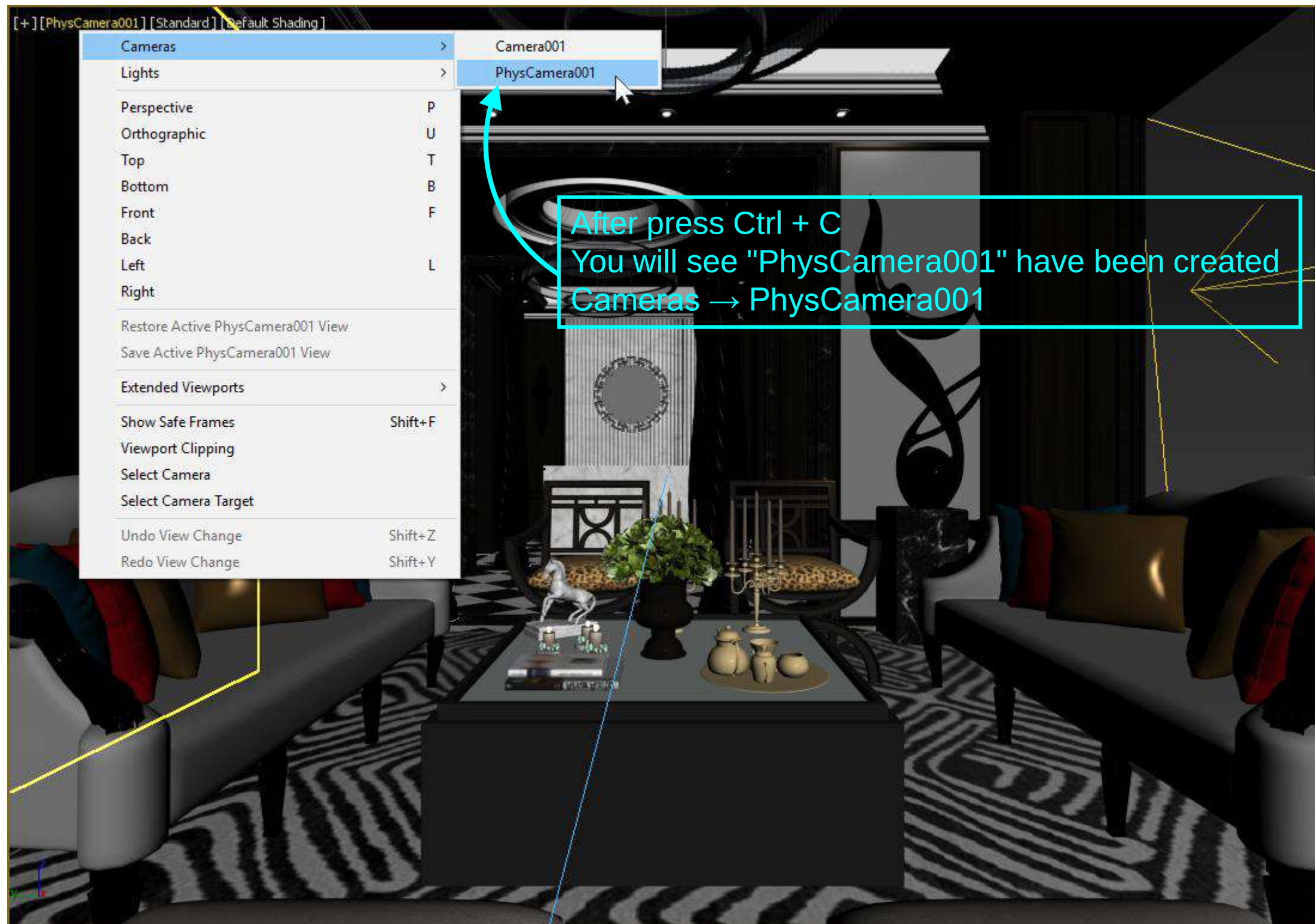
After adjust V-RayLight, now it is for camera part



OR

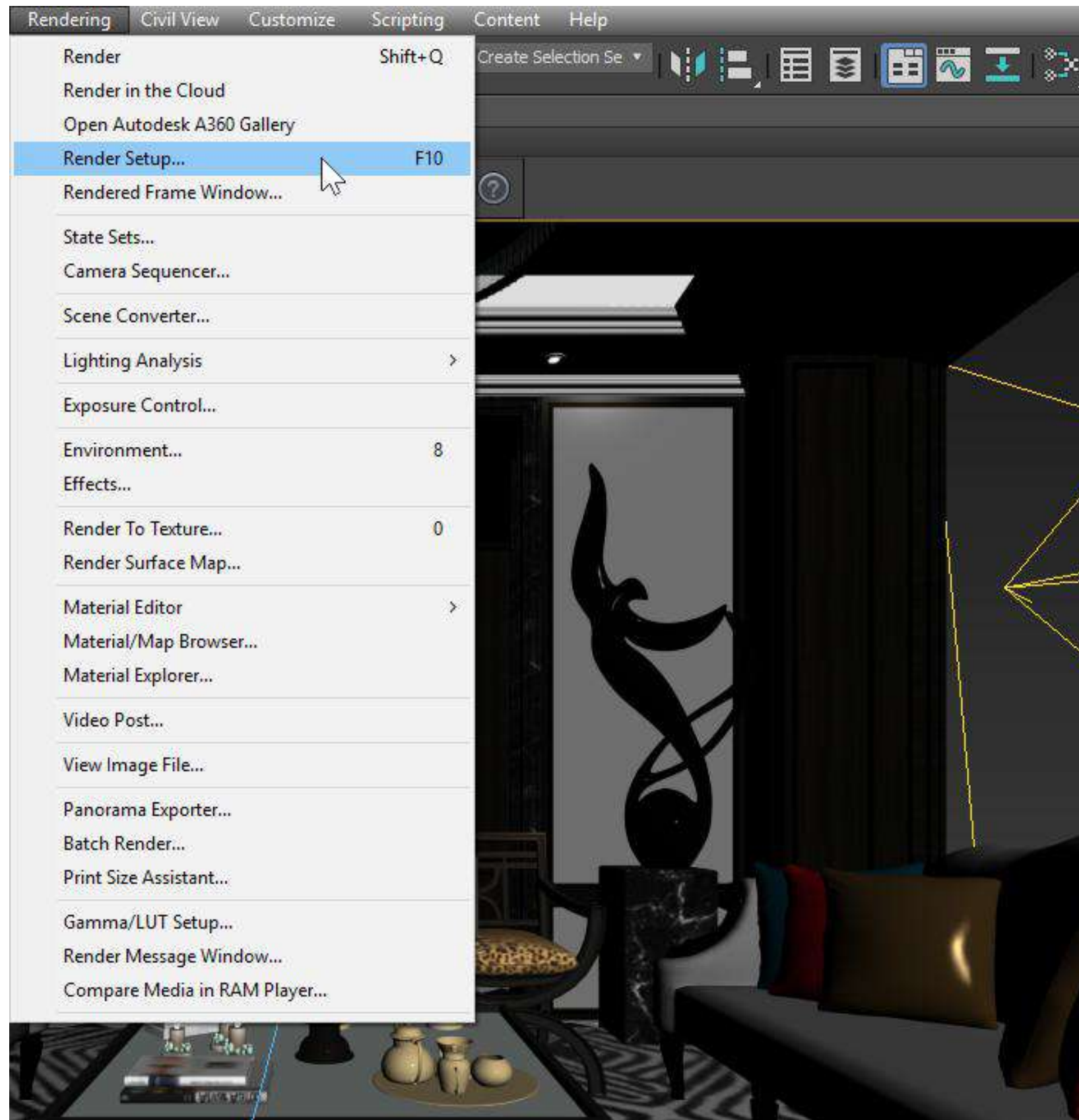


In "P" view (Perspective), adjust the suitable position for your camera shoot
And then press Ctrl + C to create PhysCamera



After press Ctrl + C
You will see "PhysCamera001" have been created
Cameras → PhysCamera001

After create PhysCamera001, next we are going to rendering



Rendering → Render Setup

Renderer: V-Ray Adv 3.40.01

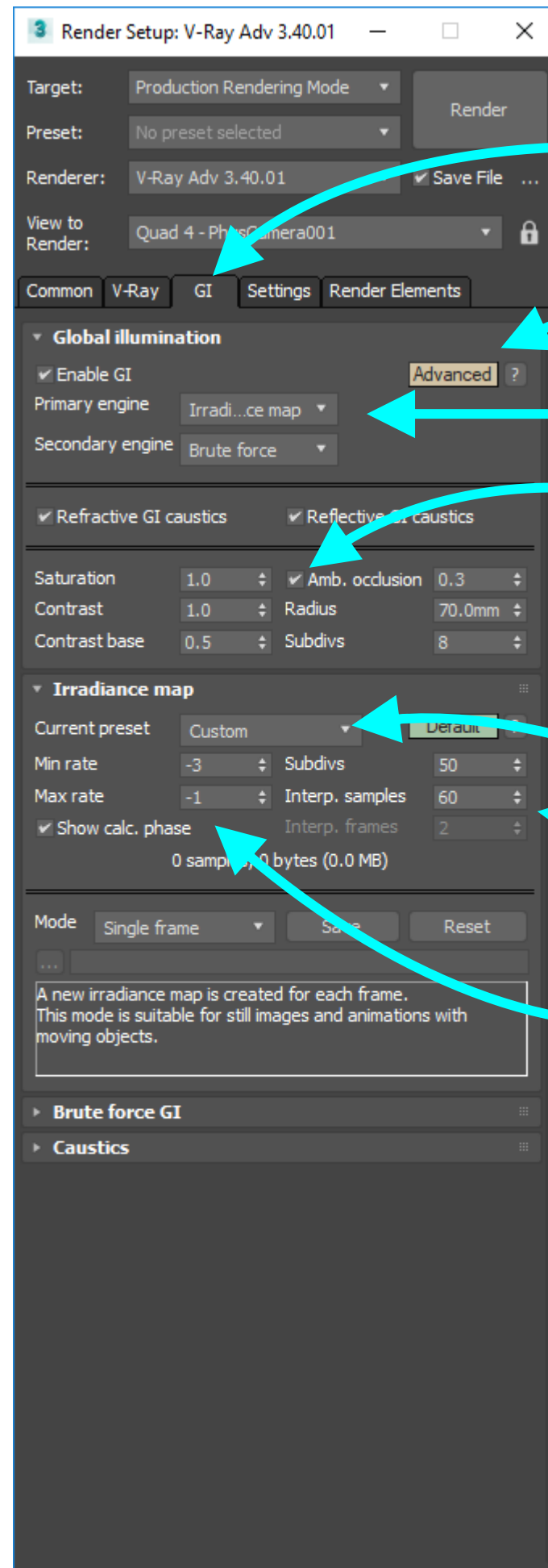
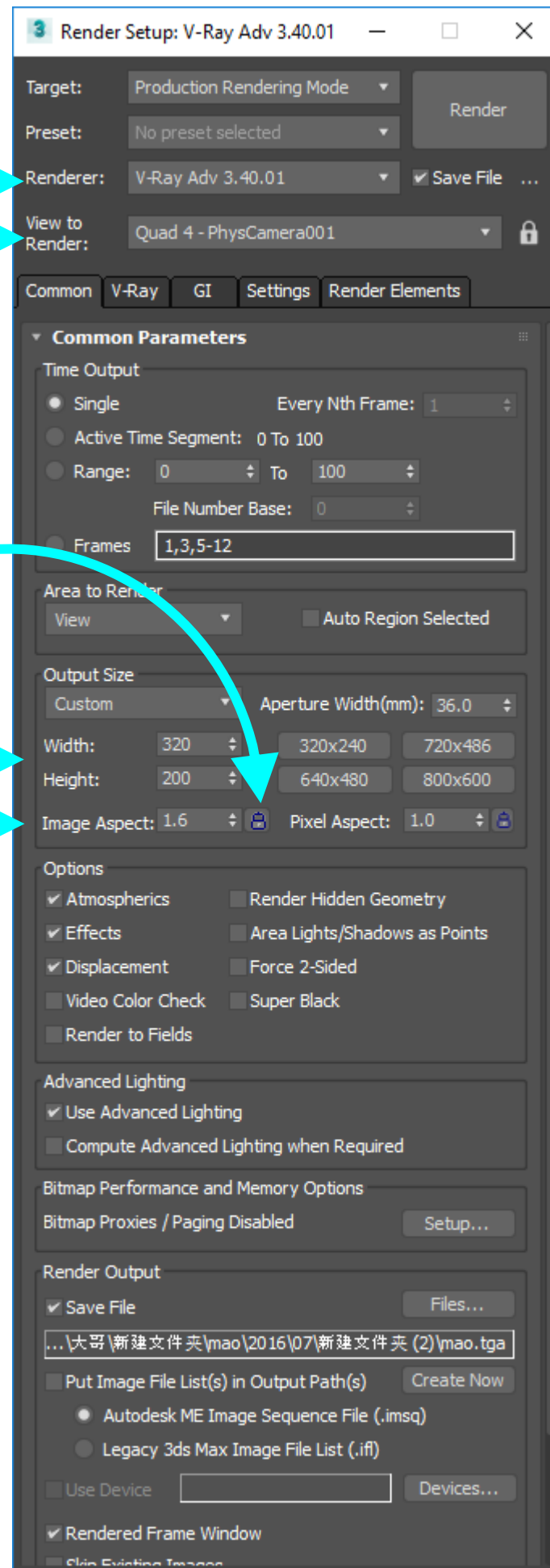
View to Render: Quad 4

Make sure it is unlock

 - lock
 - unlock

Render size 320 x 200

Size 320 x 200, and image aspect will automatic turn to 1.6



Switch to **GI**

Switch to Advanced

Primary engine: Irradiance map
Secondary engine: Brute force

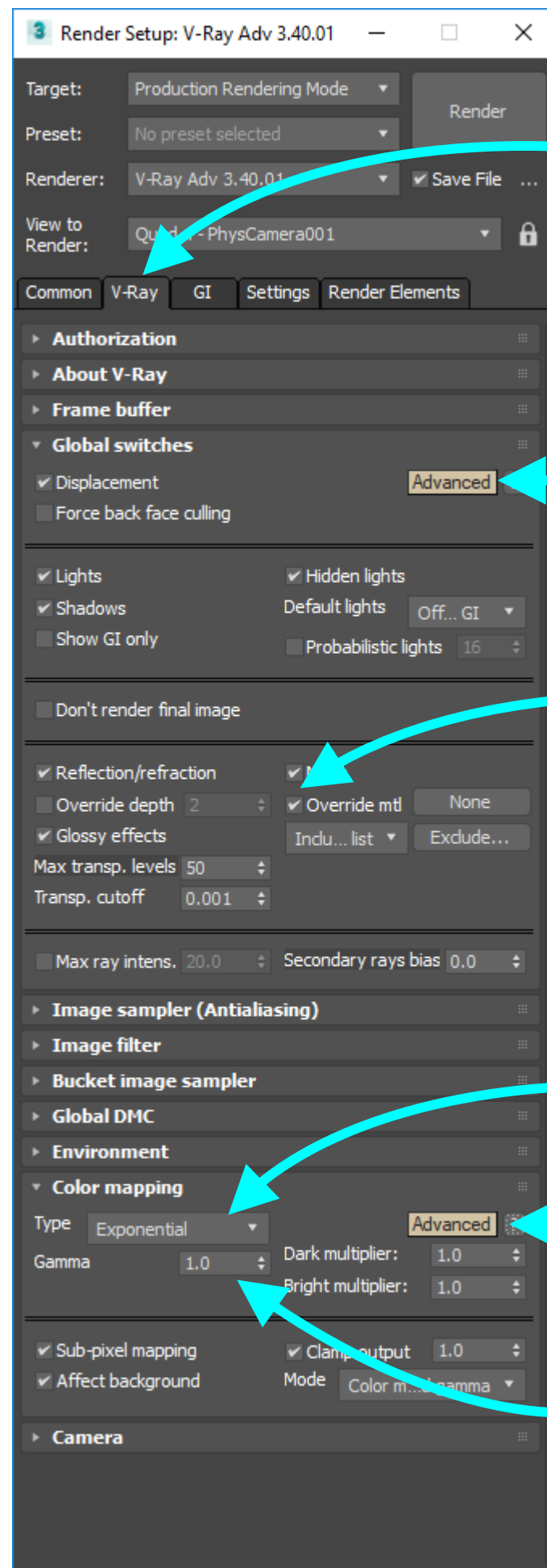
Enable Amb. occlusion

Amb. Occlusion: 0.3
Radius: 70.0mm
Subdivs: 8

Switch to Custom

Subdivs: 50
Interp. Samples: 60

Min rate: -3
Max rate: -1



Switch to V-Ray

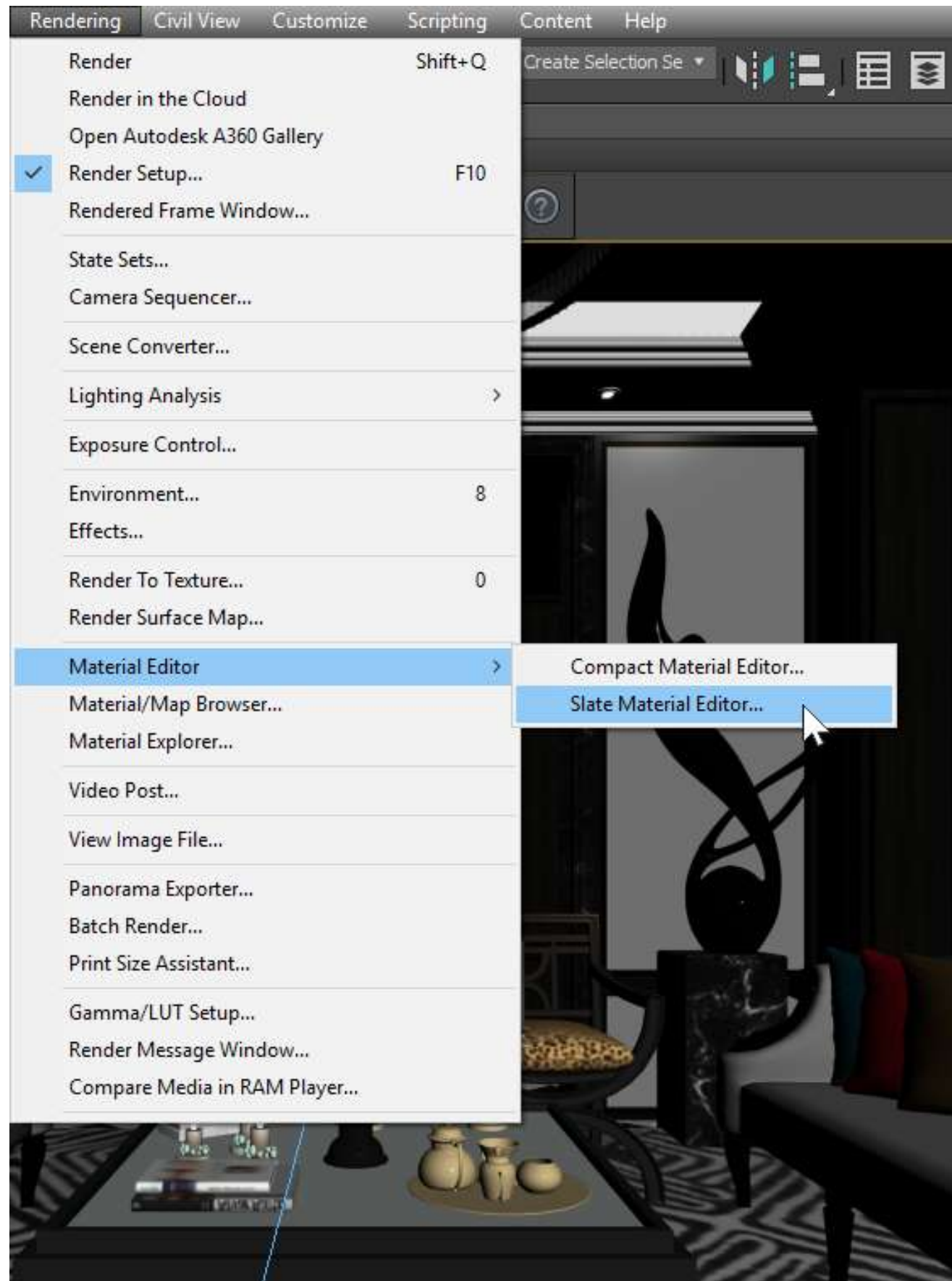
Switch to Advanced

Enable Override mtl

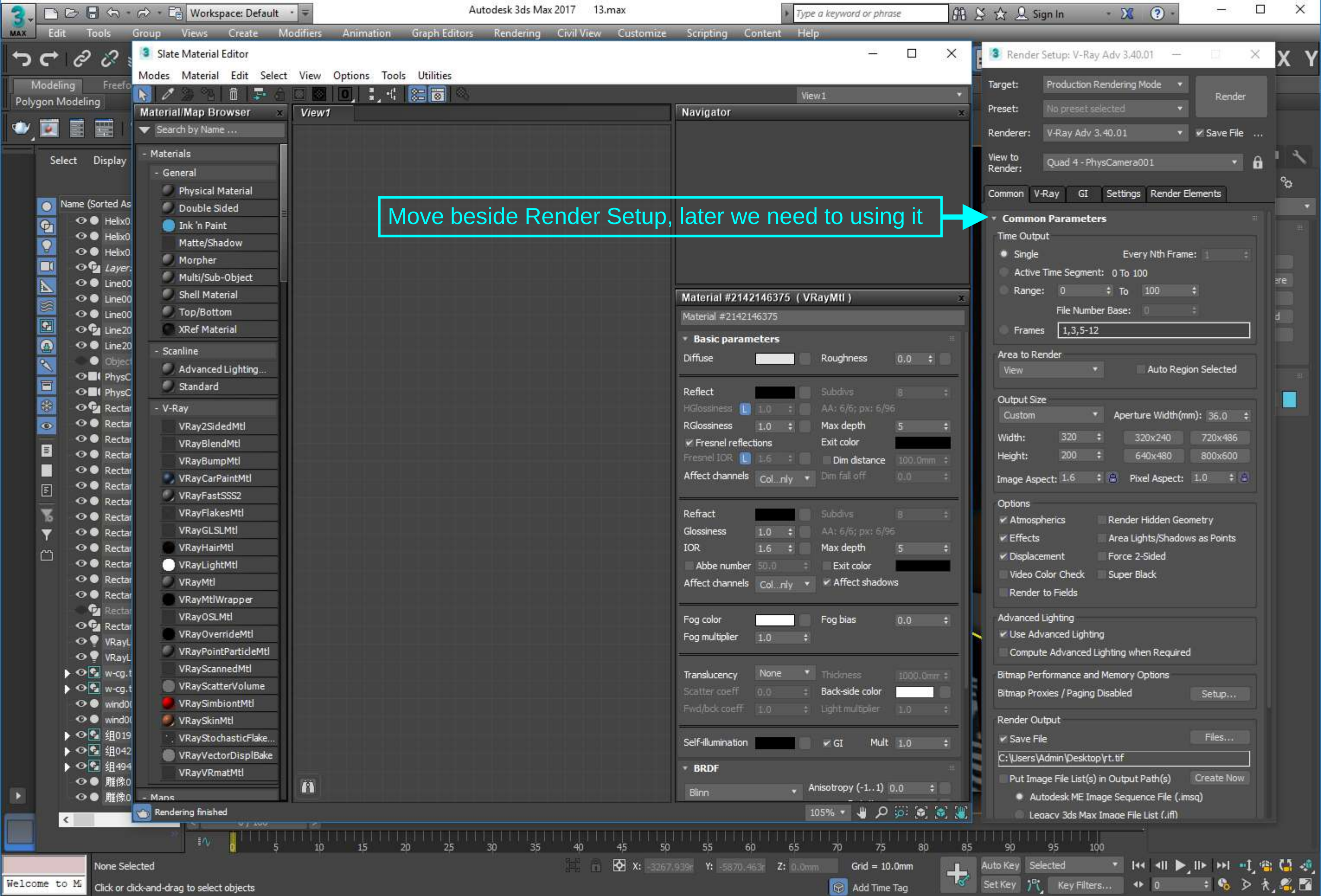
Switch to Exponential

Switch to Advanced

Gamma: 1.0

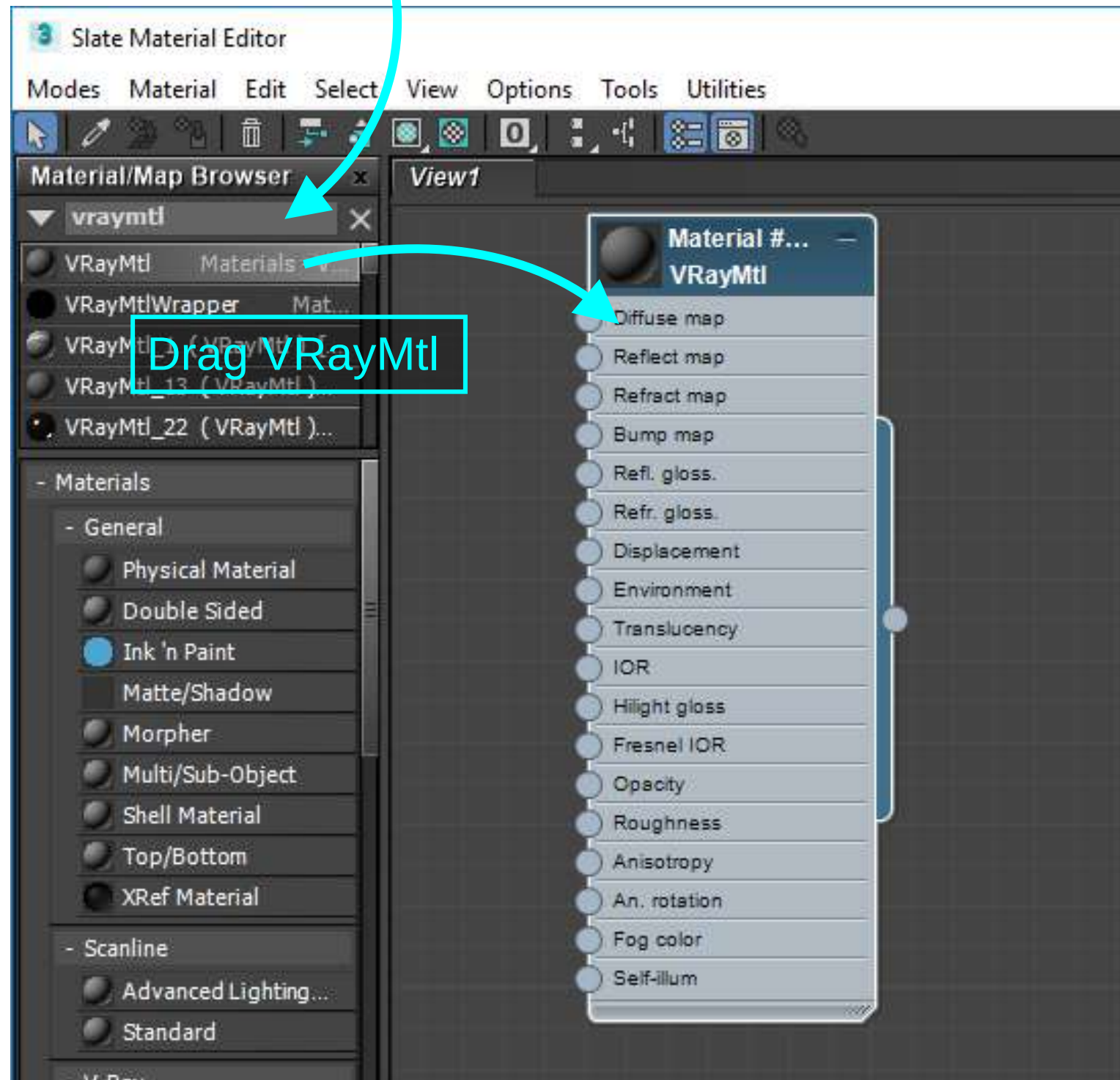


Next, go to Slate Material Editor



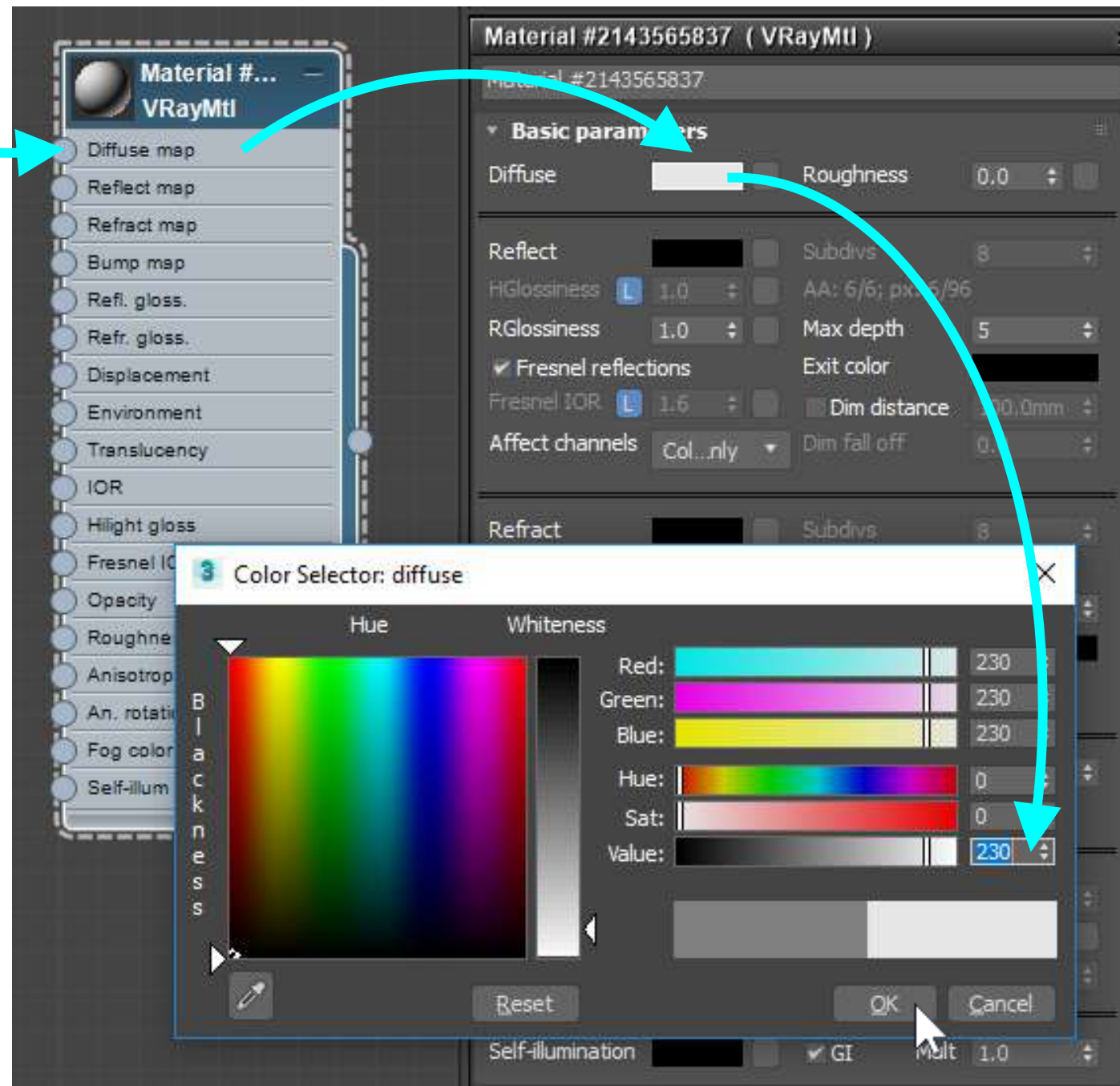
Move beside Render Setup, later we need to using it

Under Material/Map Browser, typing "vraymtl" (vraymtl - vray material)

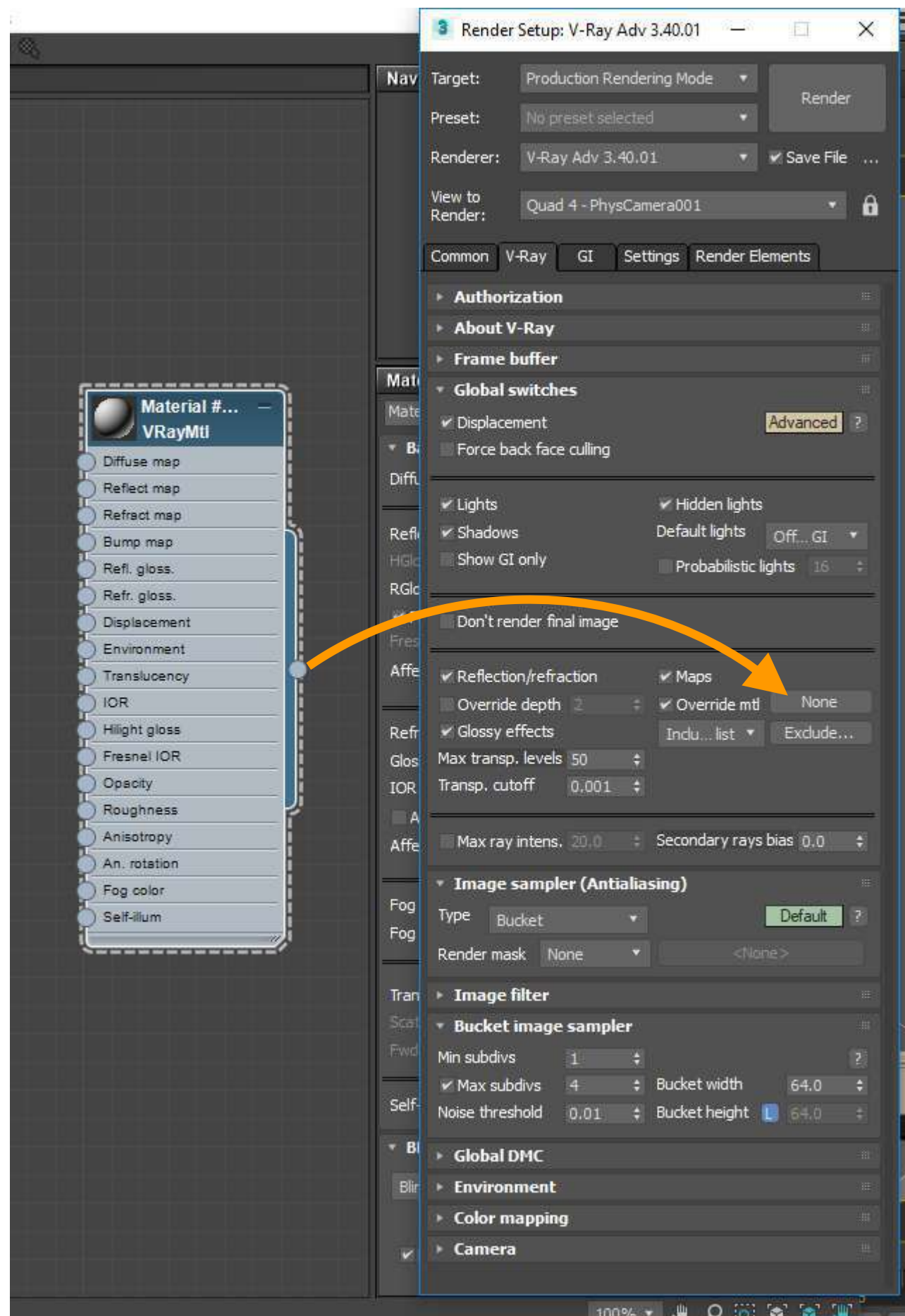


Double click "Diffuse map"

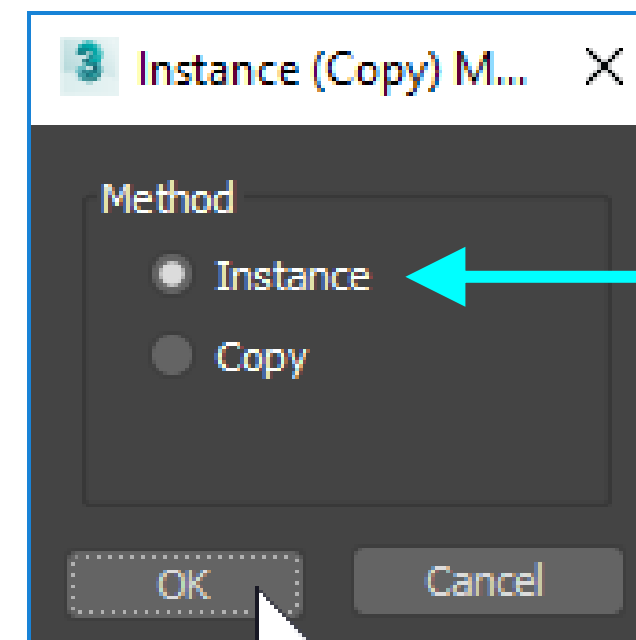
Double click "Diffuse" to change color



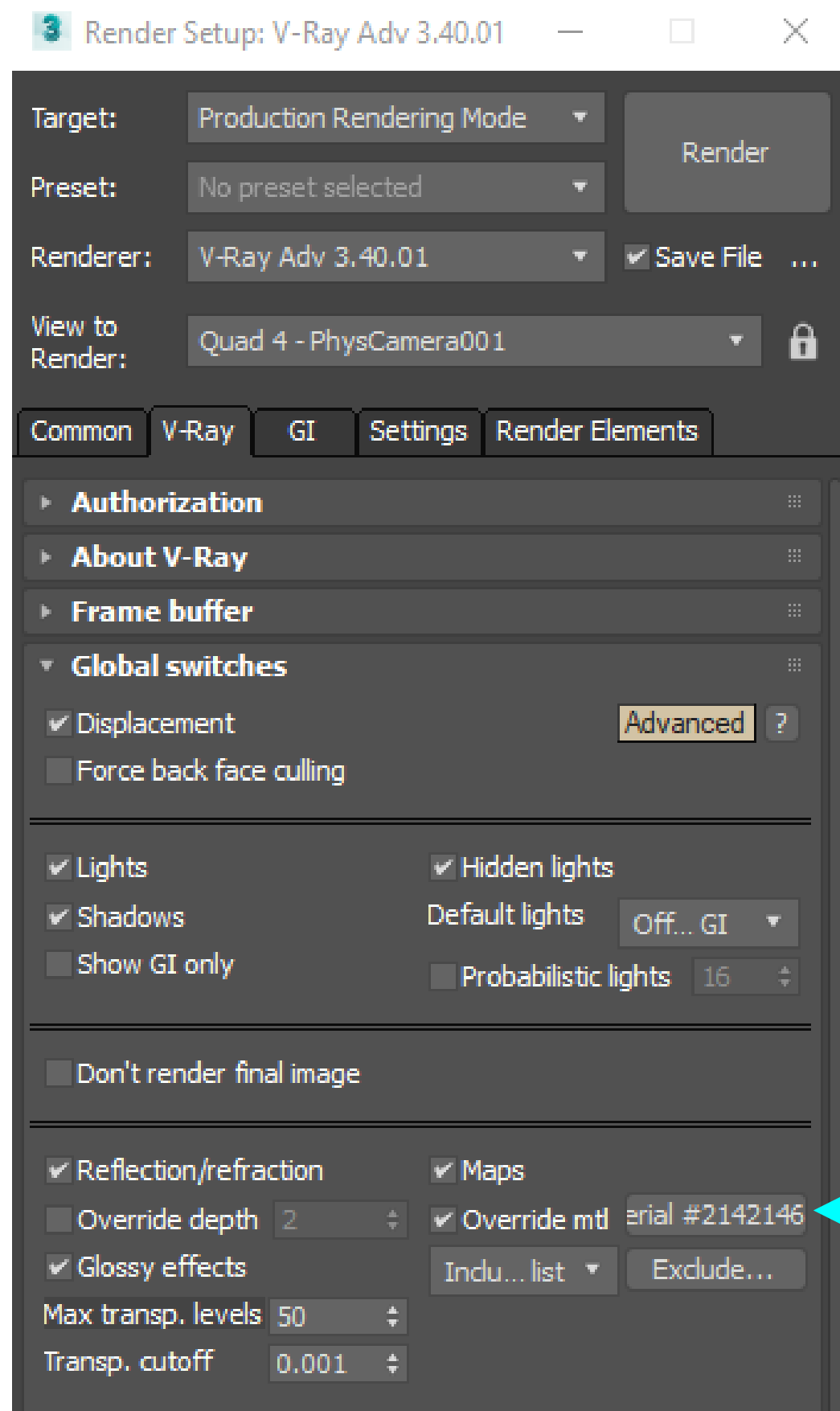
Change the value 128 → 230



Drag VRayMtl into the box next to Override mtl

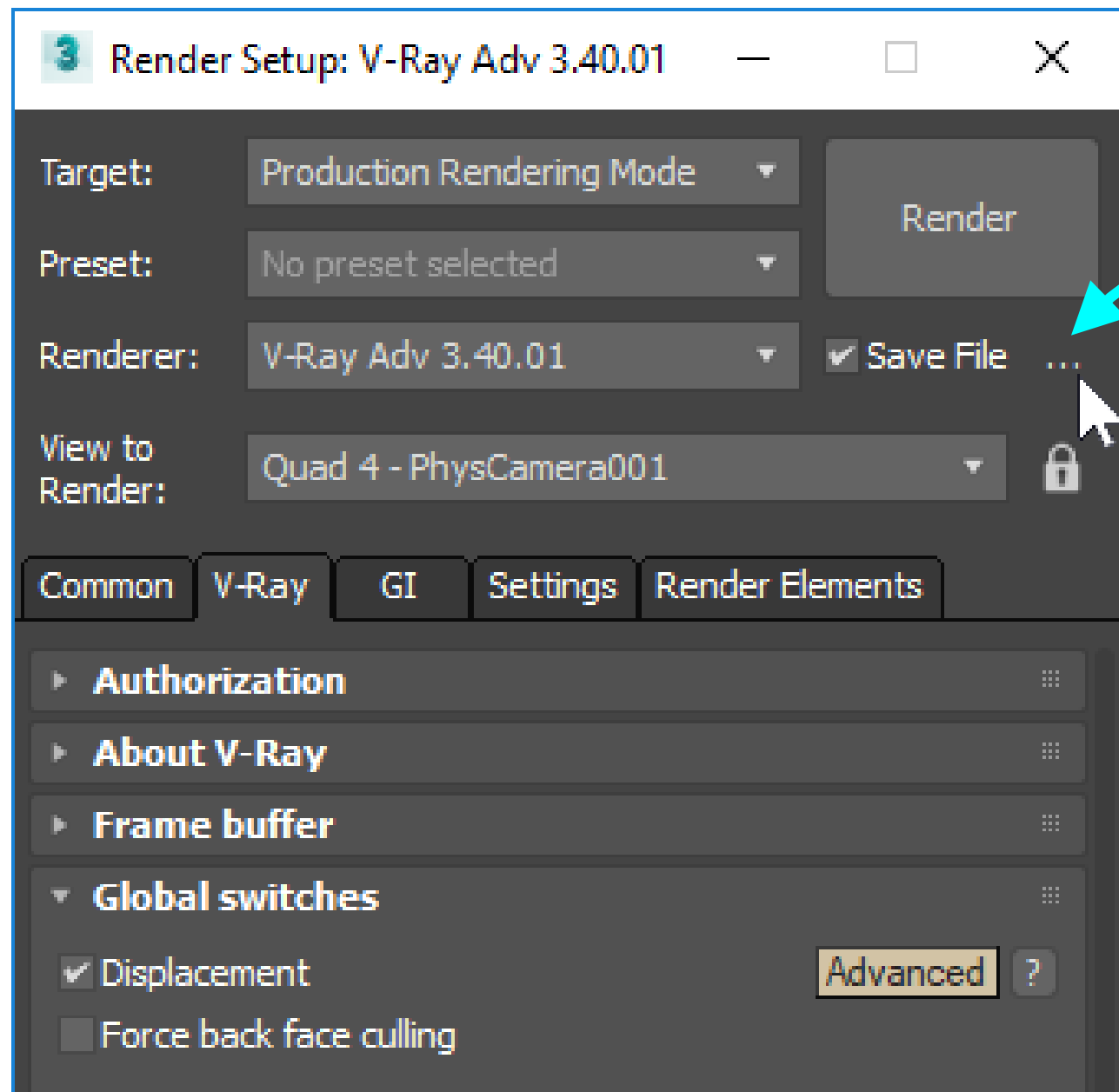


Select Instance
And click OK

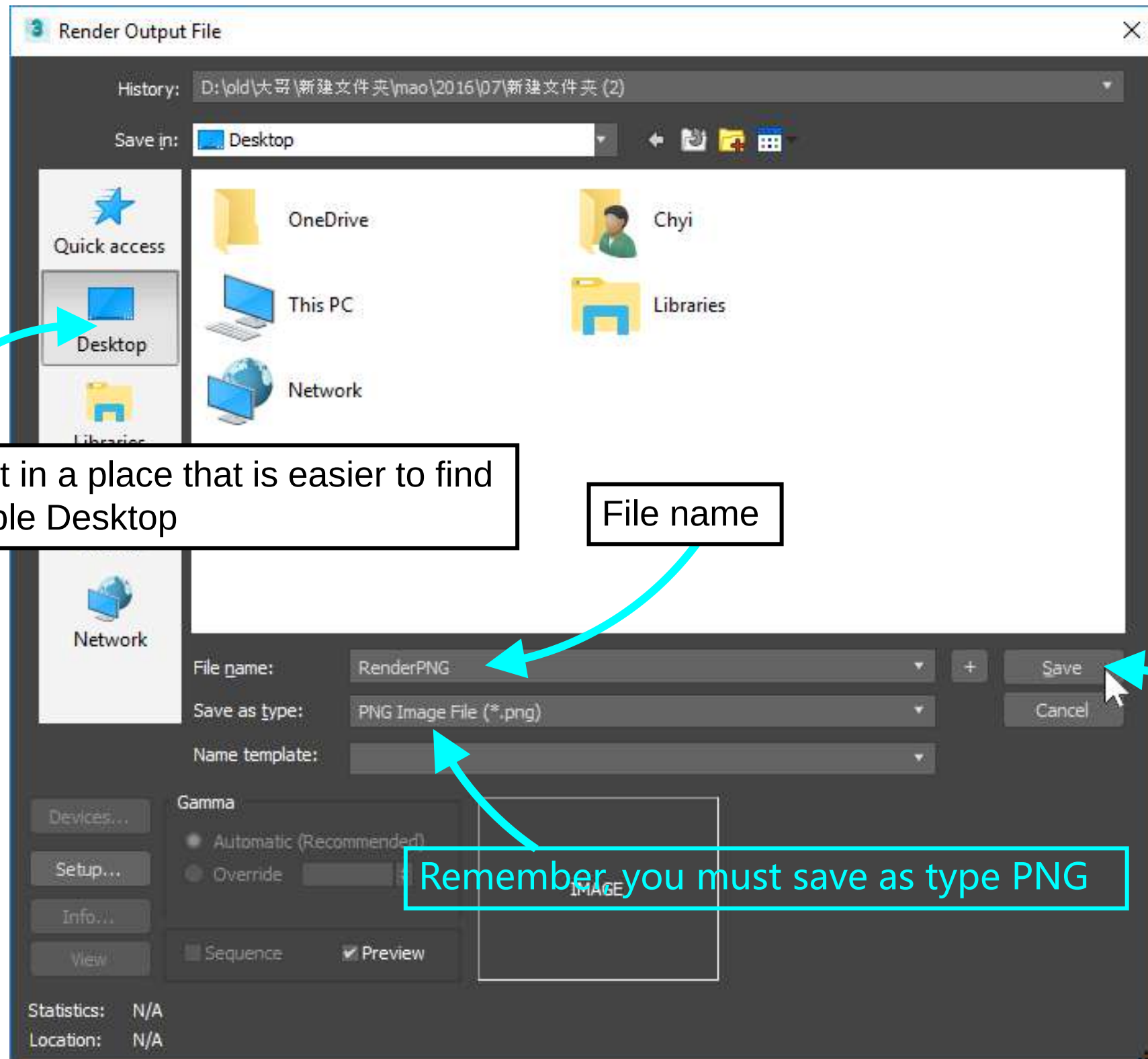


After that, you will see Material #2142146 numbers beside Override mtl

Next we can render white box (or grey render)



Press "... " after Save File

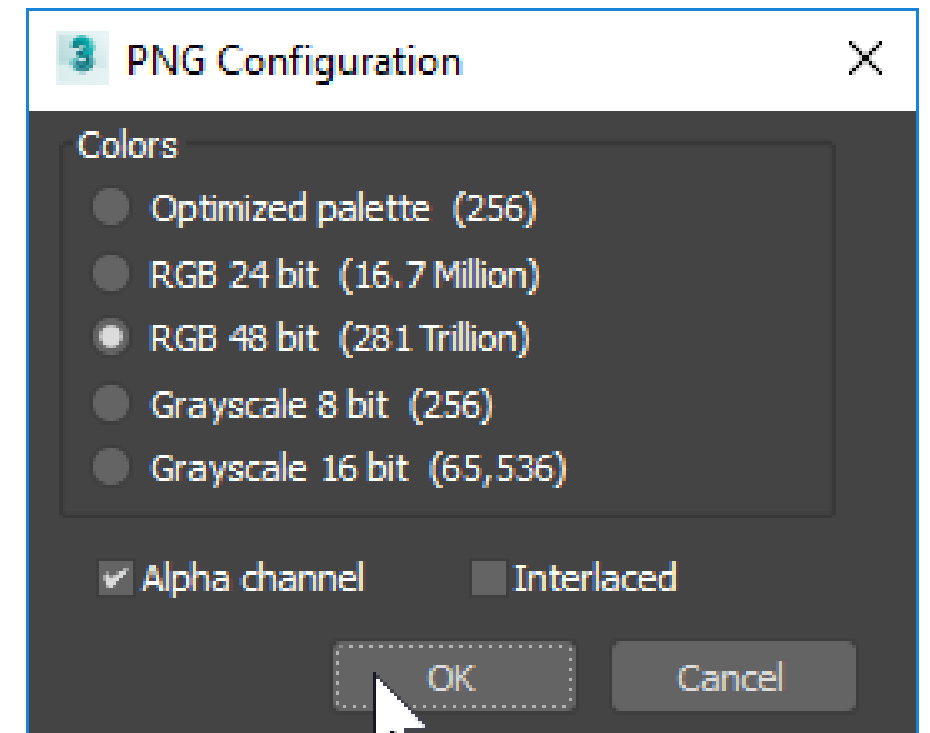


Save it in a place that is easier to find
example Desktop

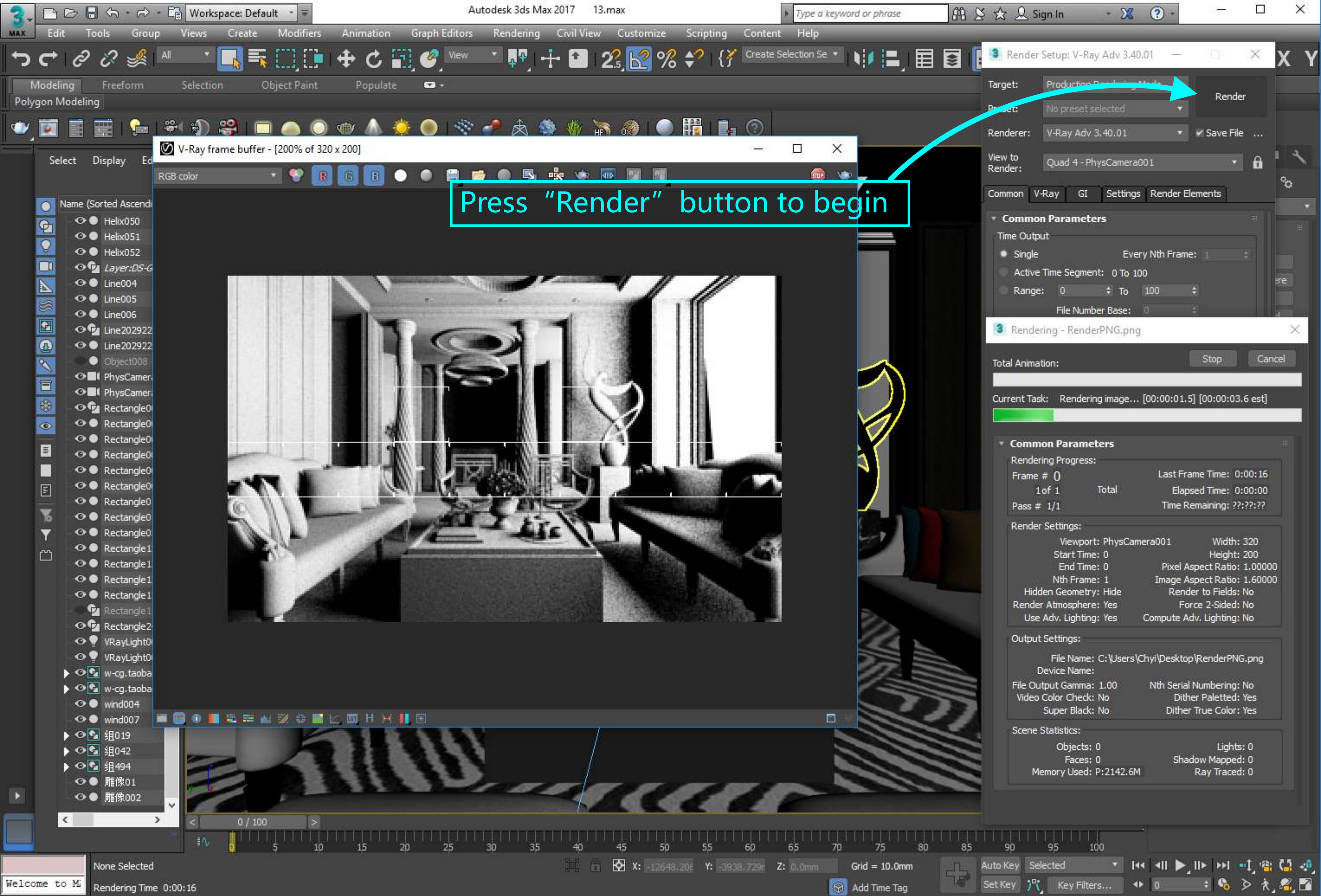
File name

Remember, you must save as type PNG

Save



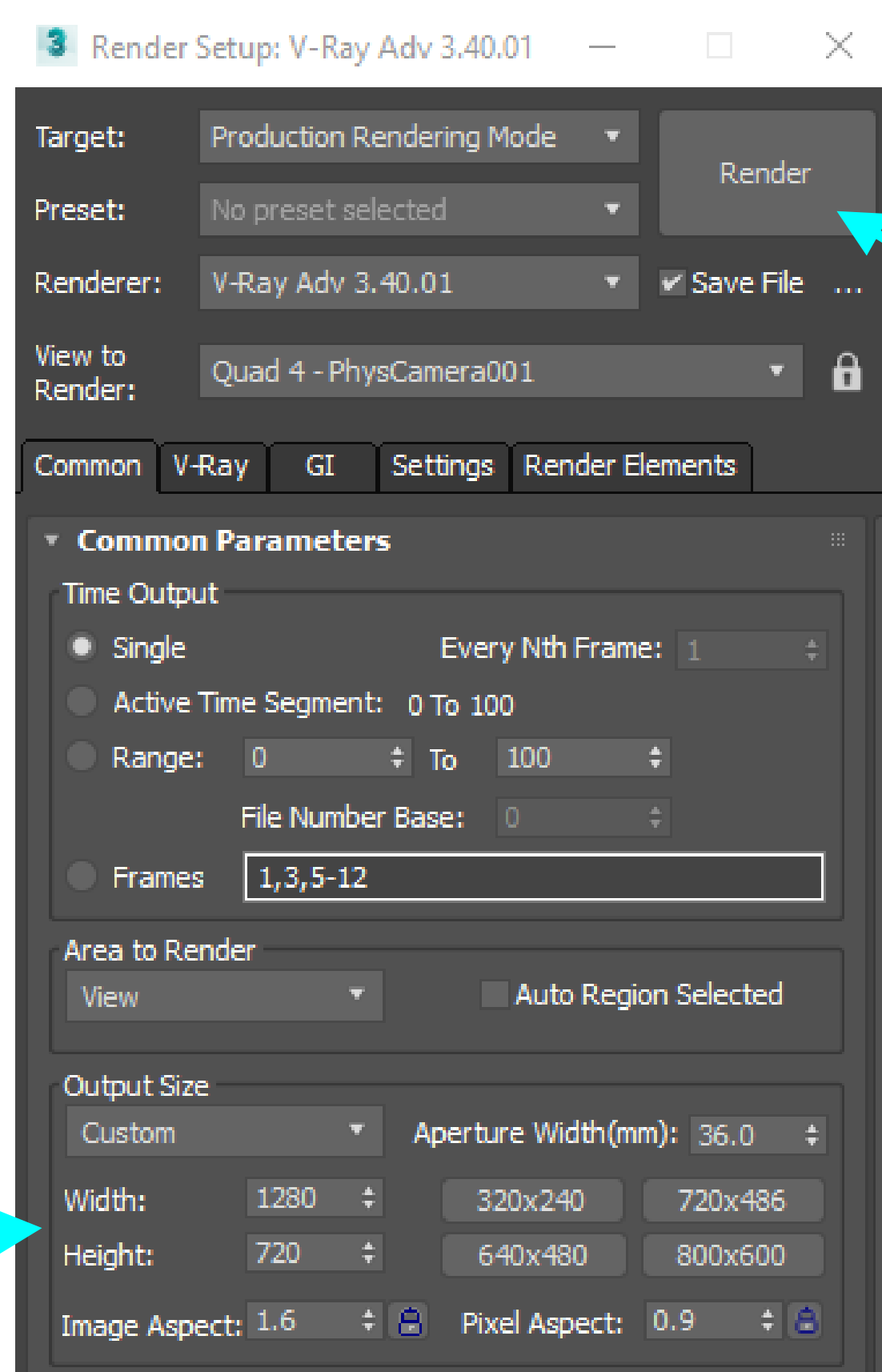
Choose RGB 48 bit
And click OK



Press "Render" button to begin

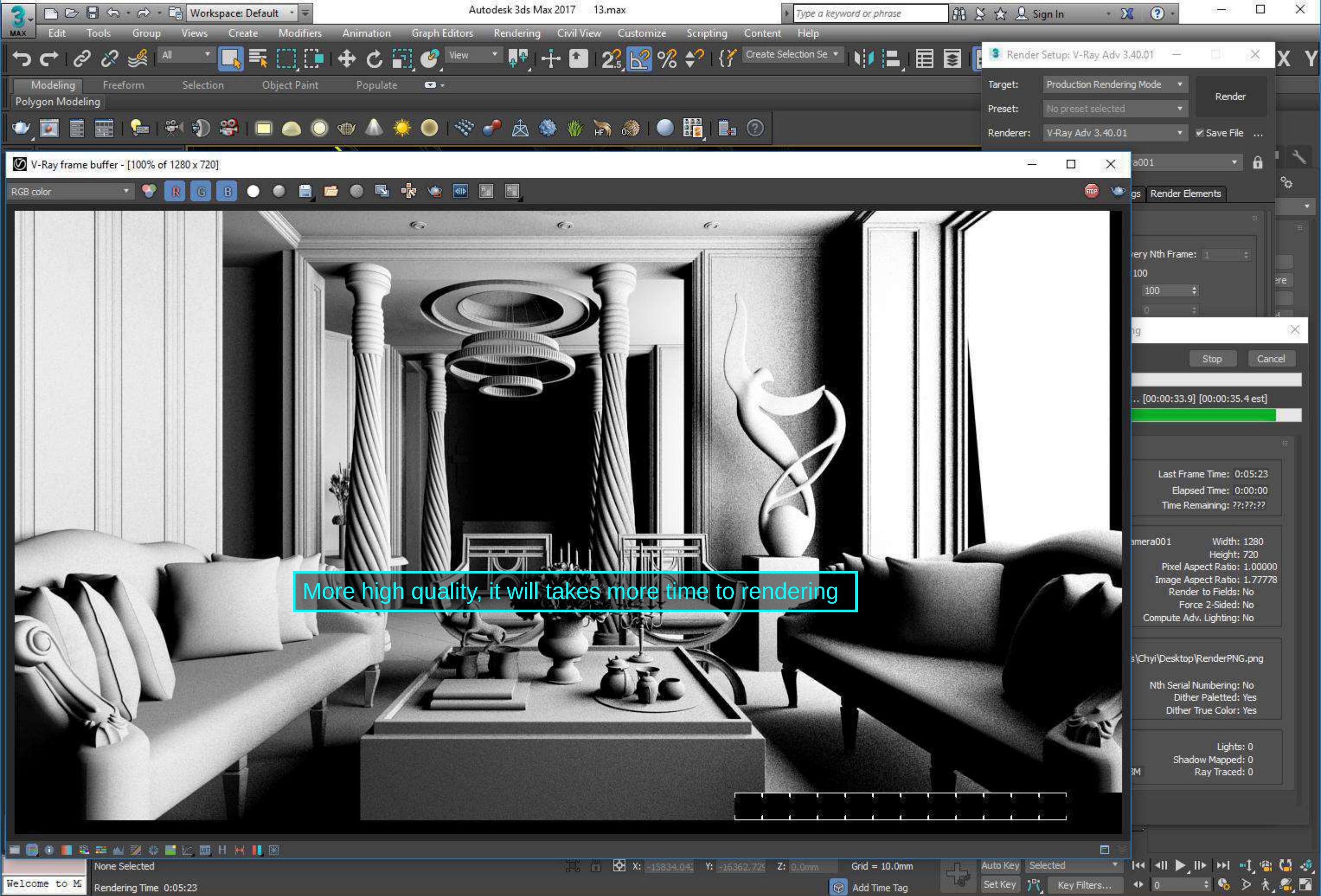


The picture size is 320x200 after rendering
Next we going render in larger size



Type the width and height

And press Render



More high quality, it will takes more time to rendering

Render Setup: V-Ray Adv 3.40.01

Target: Production Rendering Mode

Preset: No preset selected

Renderer: V-Ray Adv 3.40.01

Render

Save File ...

Render Elements

Every Nth Frame: 1

100

100

0

ng

Stop

Cancel

... [00:00:33.9] [00:00:35.4 est]

Last Frame Time: 0:05:23

Elapsed Time: 0:00:00

Time Remaining: ??:??:??

camera001

Width: 1280

Height: 720

Pixel Aspect Ratio: 1.00000

Image Aspect Ratio: 1.77778

Render to Fields: No

Force 2-Sided: No

Compute Adv. Lighting: No

s\Chyi\Desktop\RenderPNG.png

Nth Serial Numbering: No

Dither Paletted: Yes

Dither True Color: Yes

Lights: 0

Shadow Mapped: 0

Ray Traced: 0

Auto Key

Selected

Set Key

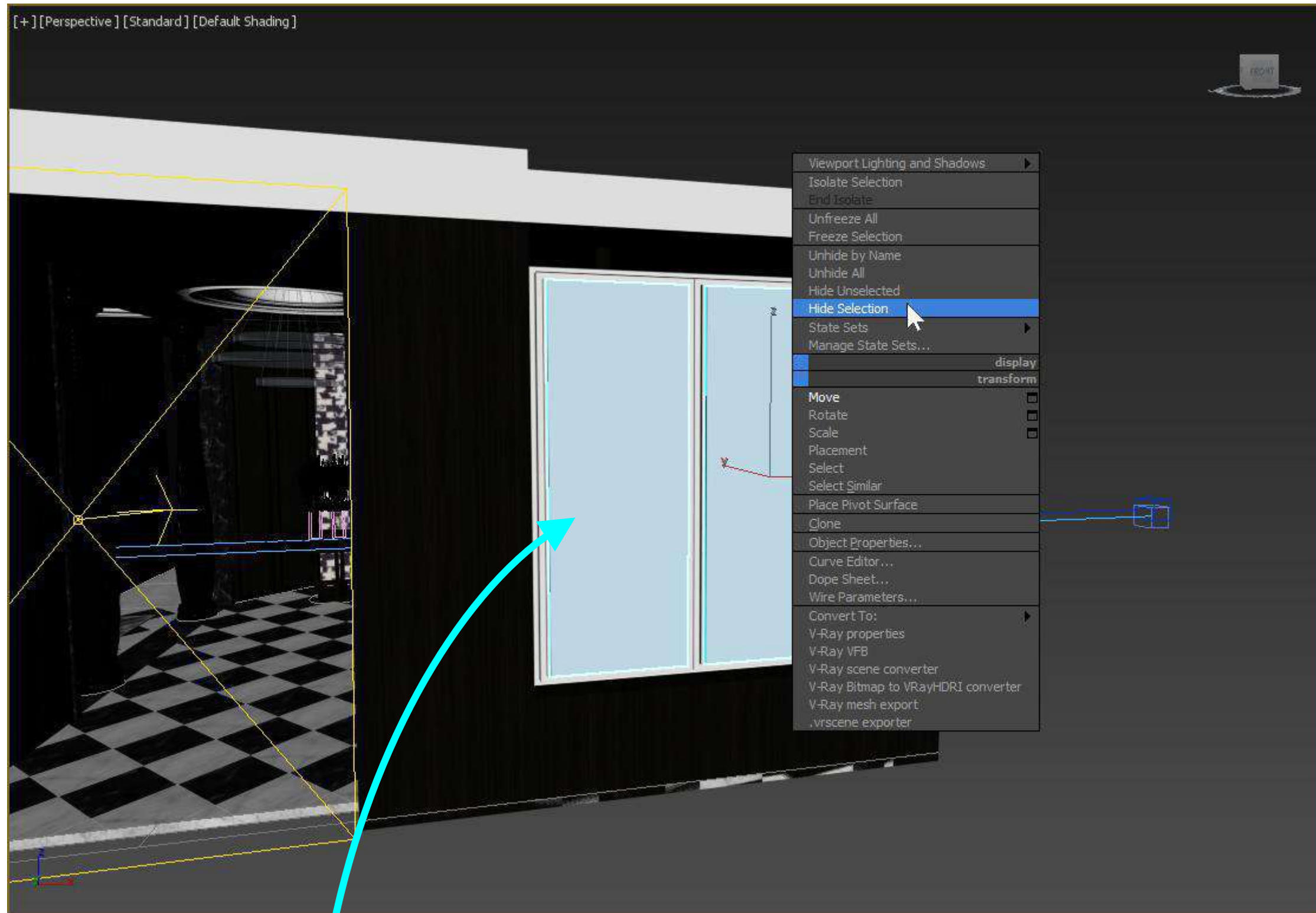
Key Filters...



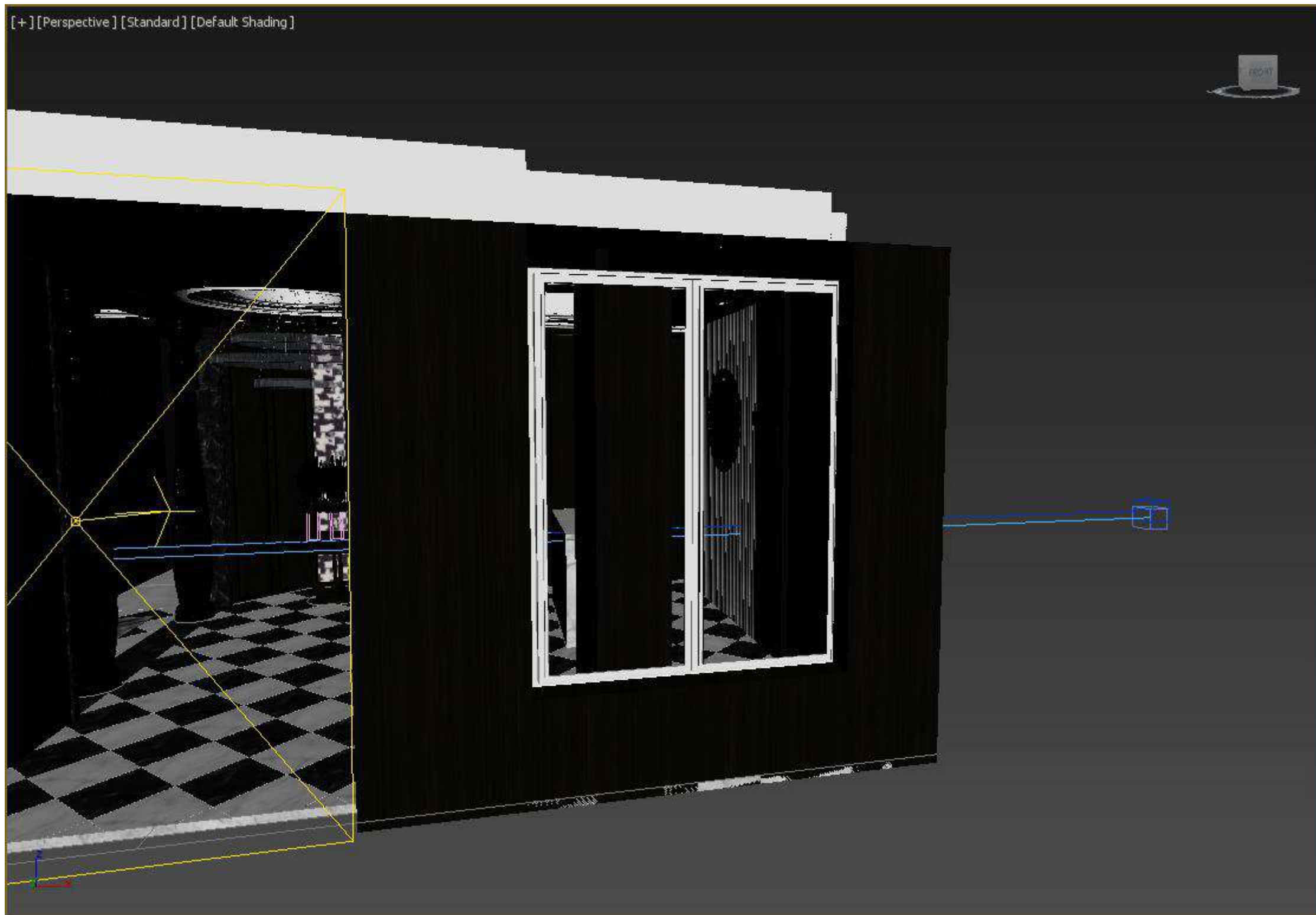
Finish



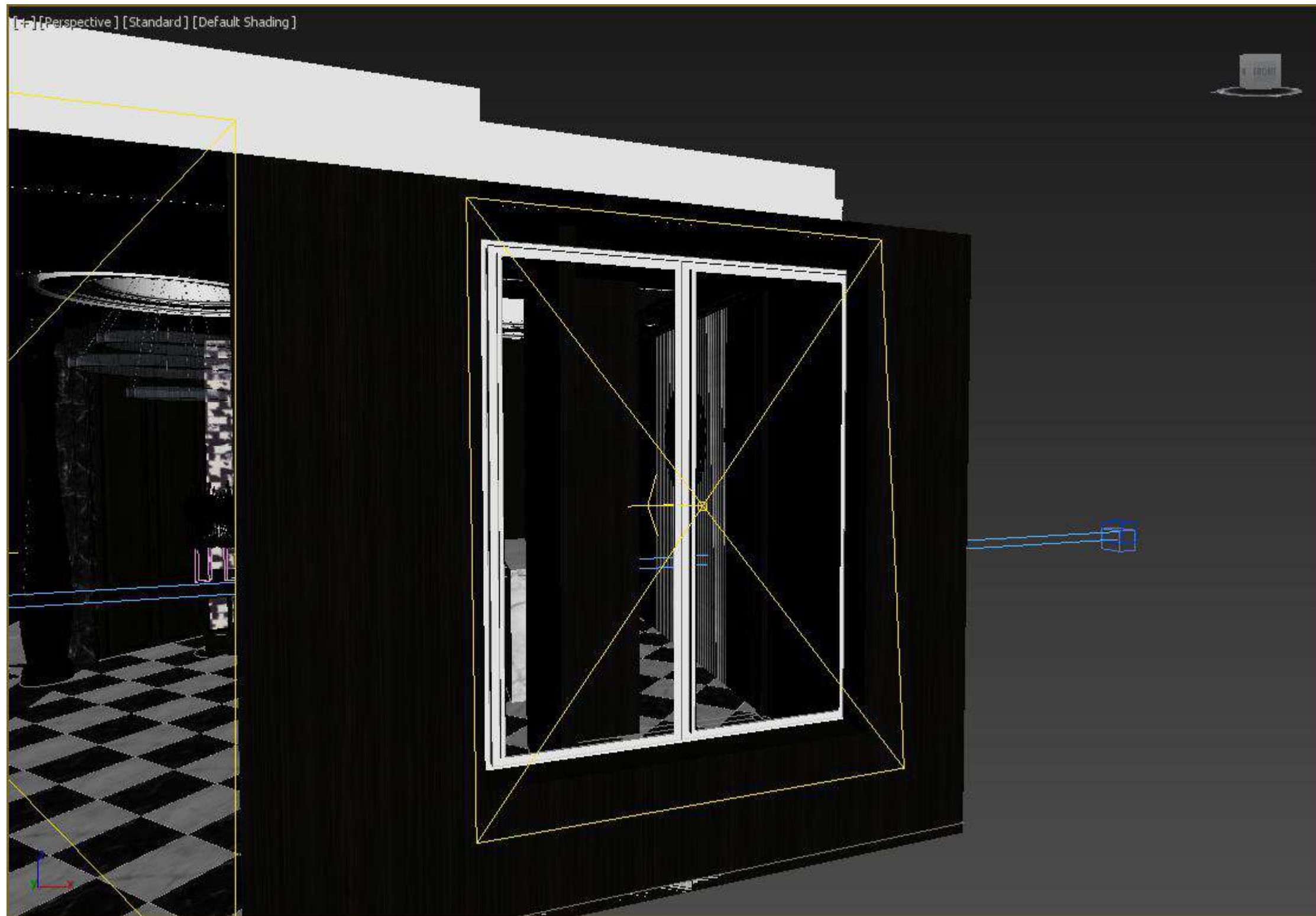
Since inside being too dark, we need add some V-RayLight



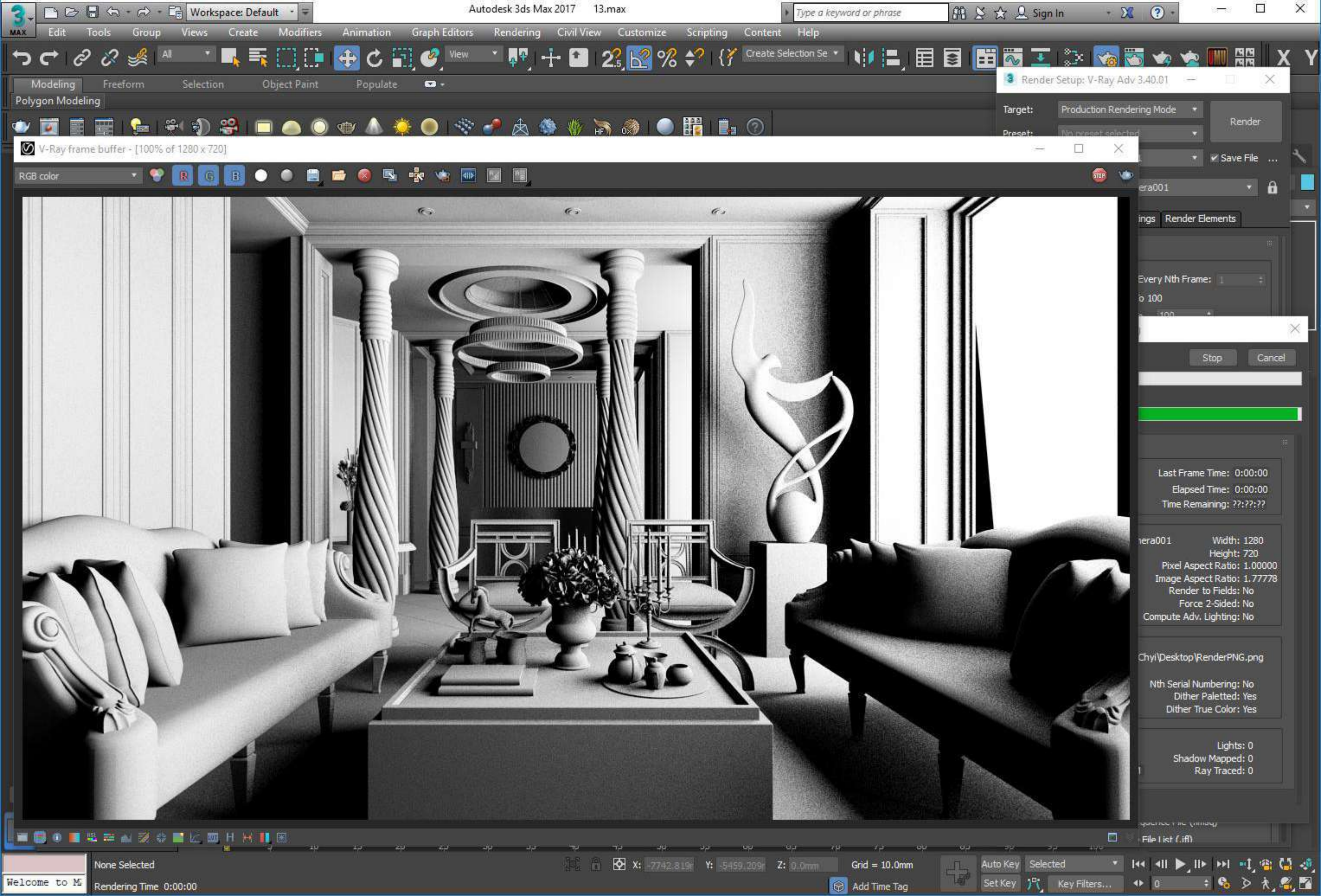
Ungroup and hide the glass panel



Next we going add VRayLight beside windows



After adding VRayLight, we switch back to PhysCamera001

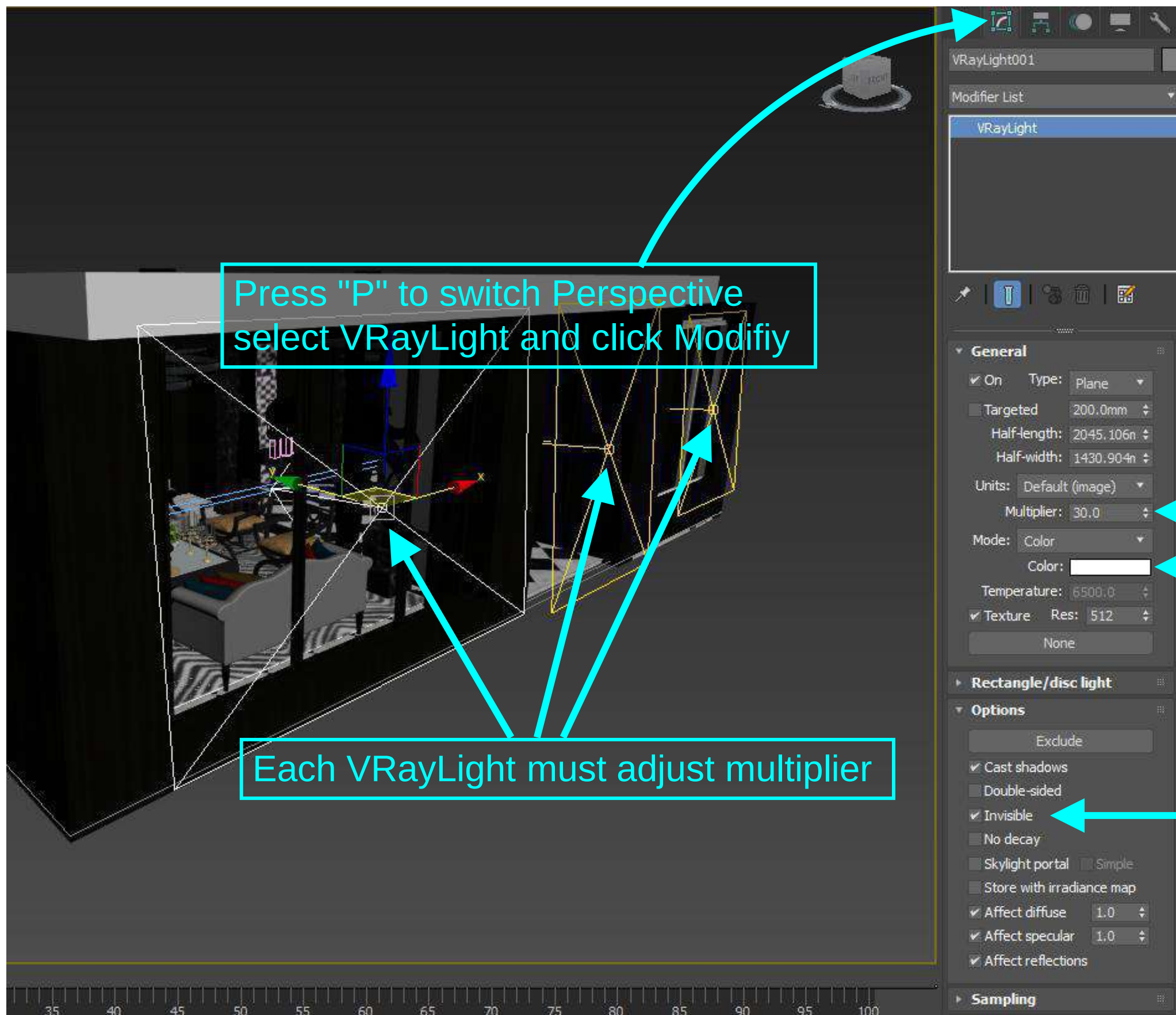




As we can see, now the result
are much more better

Next we learn how to adjust the brightness for VRayLight
And add VRaySky for environment map

Due to the VRayLight are too bright, we need to adjust the VRayLight multiplier
And also add VRaySky for the environment, so the inside will not going too dark



Click "Modify"

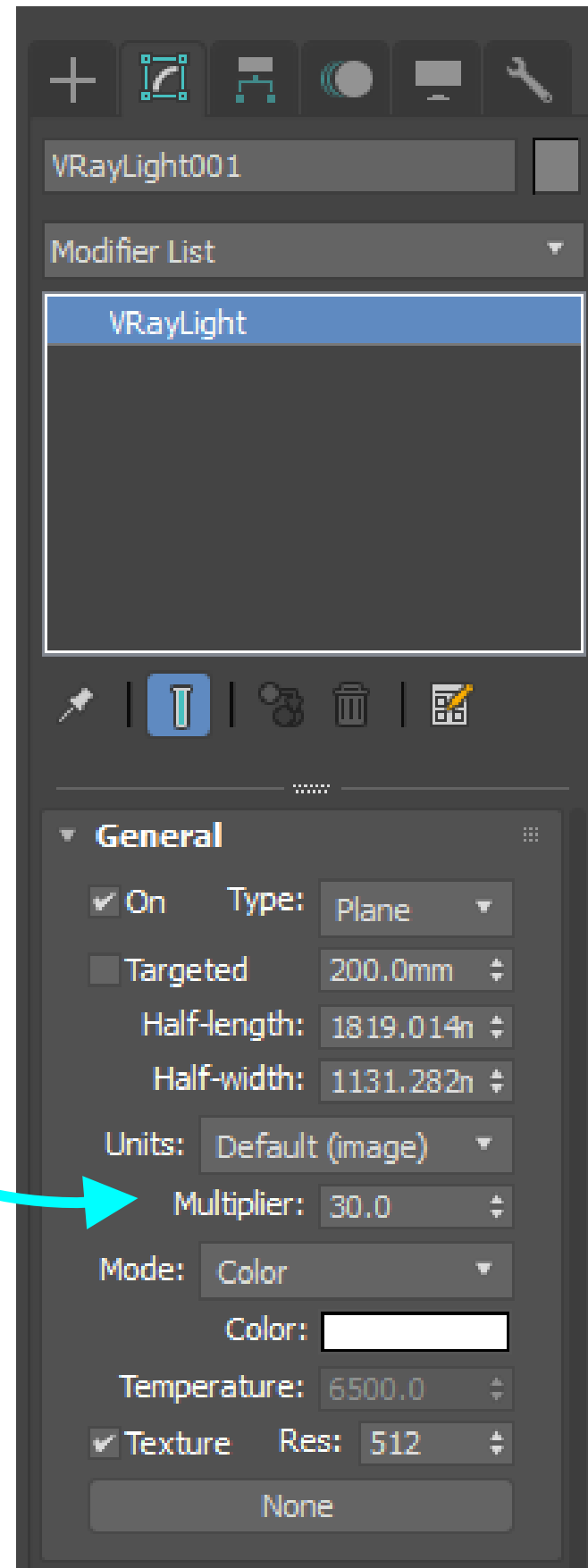
Press "P" to switch Perspective
select VRayLight and click Modify

Each VRayLight must adjust multiplier

Go to Multiplier
To adjust brightness

Keep the color
Please don't change it

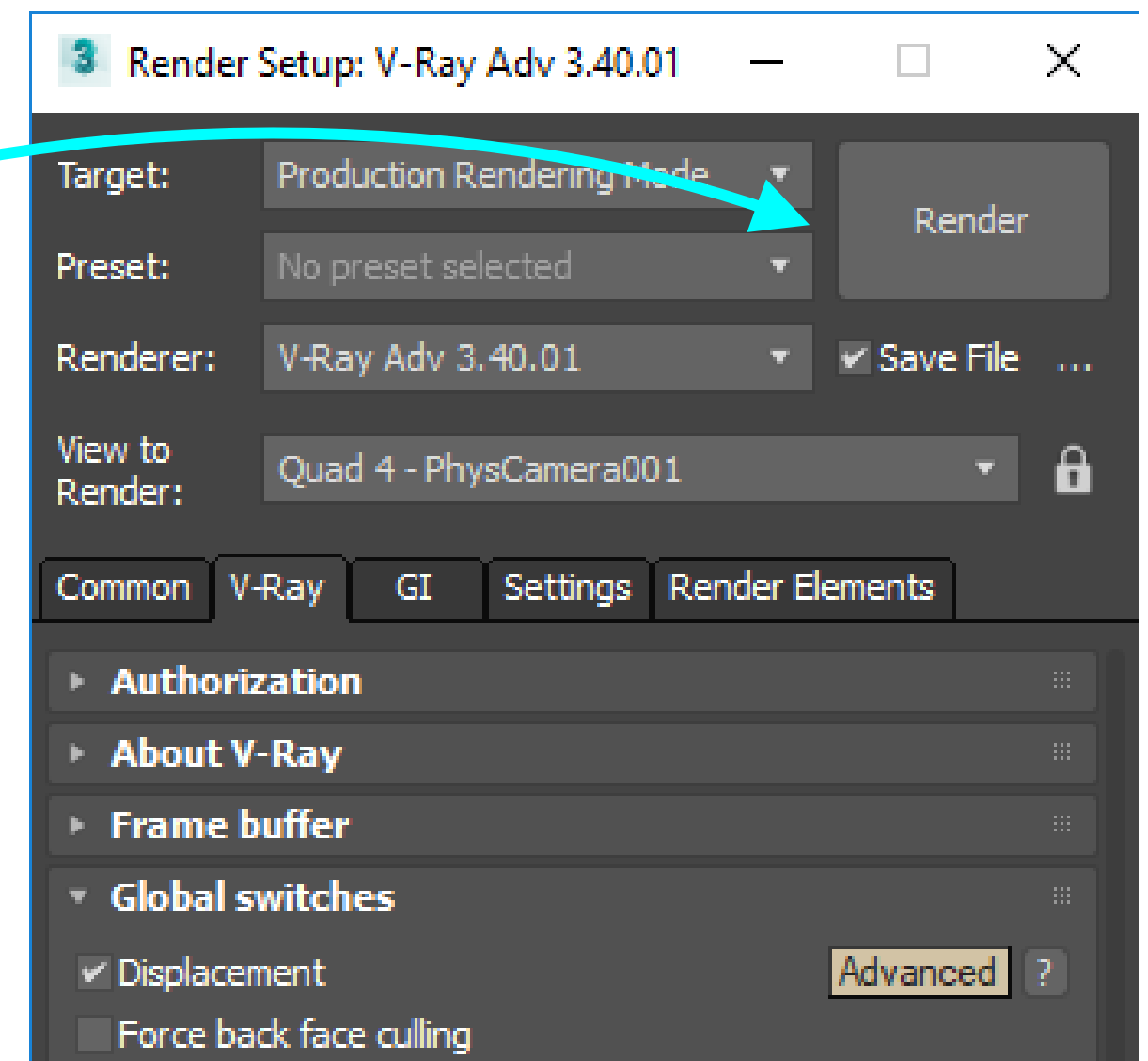
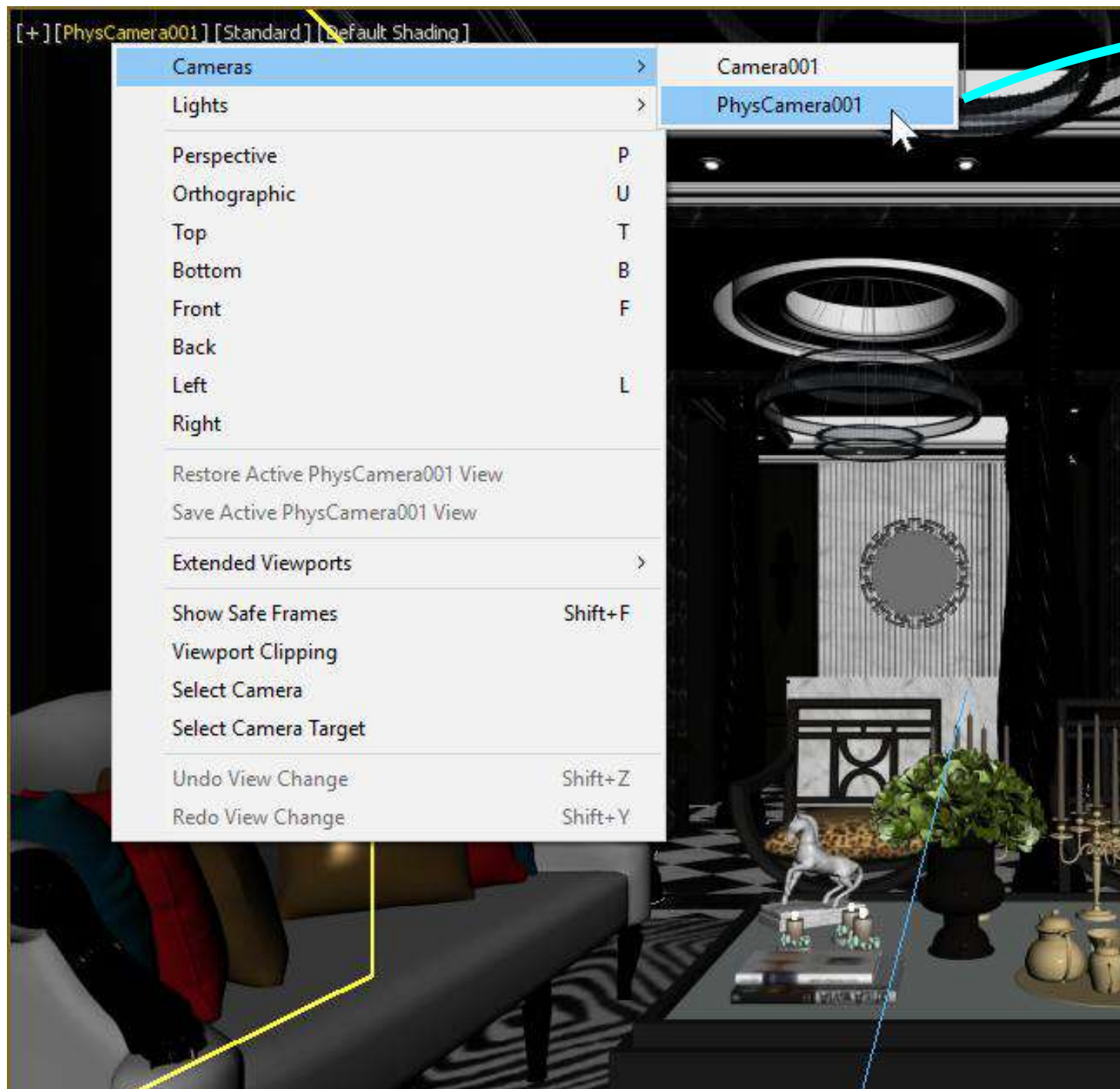
Enable Invisible



Edit the brightness
in Multiplier

Each architectural models have different structure
So you have to repeat the same step,adjust multiplier and render it
Until the screen doesn't too bright or dark when finish rendering

Switch to PhysCamera001, and press Render





Mutliplier 30.0 too bright, the result isn't well



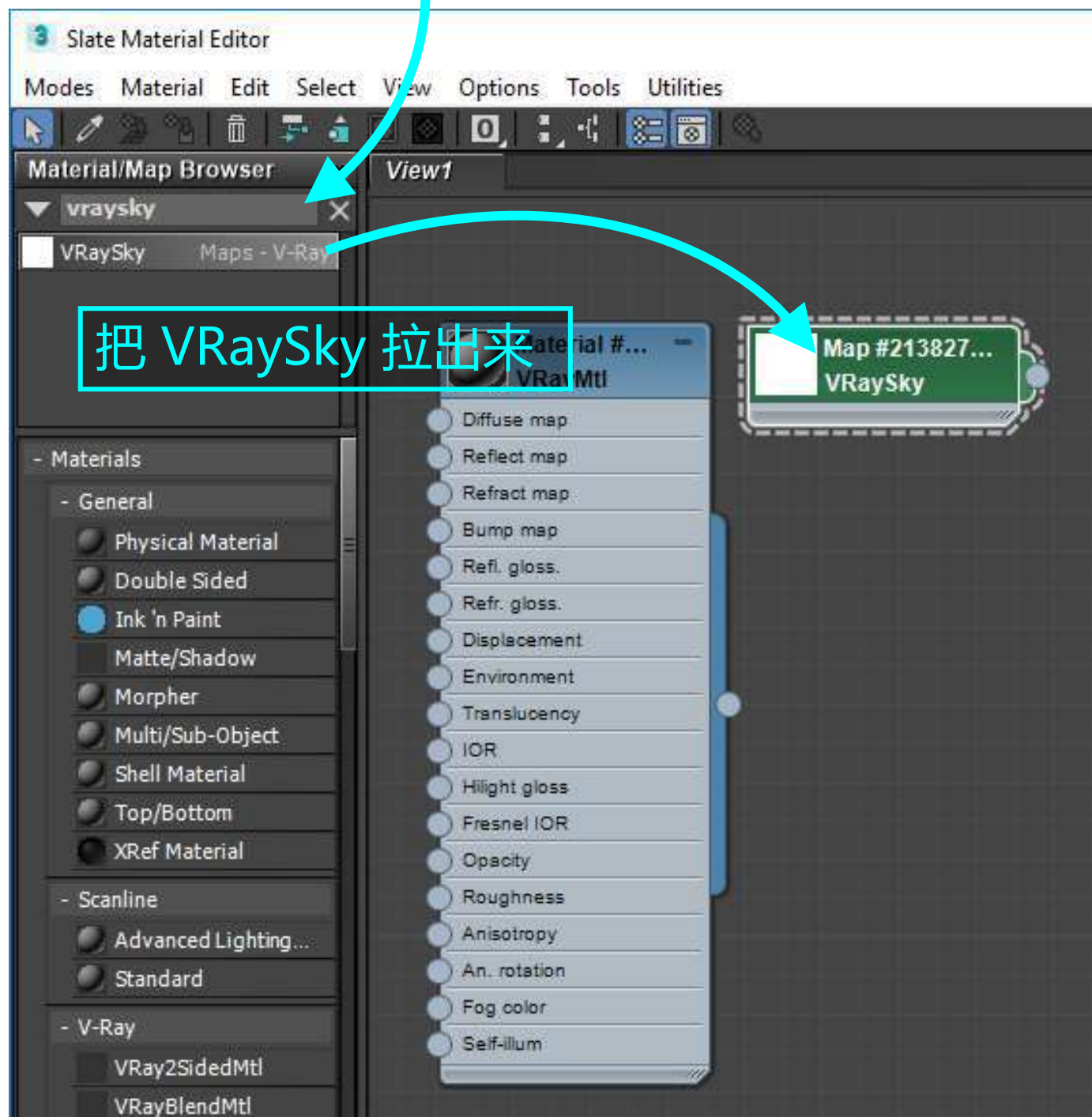
Mutliplier 20.0 too bright, the result isn't well



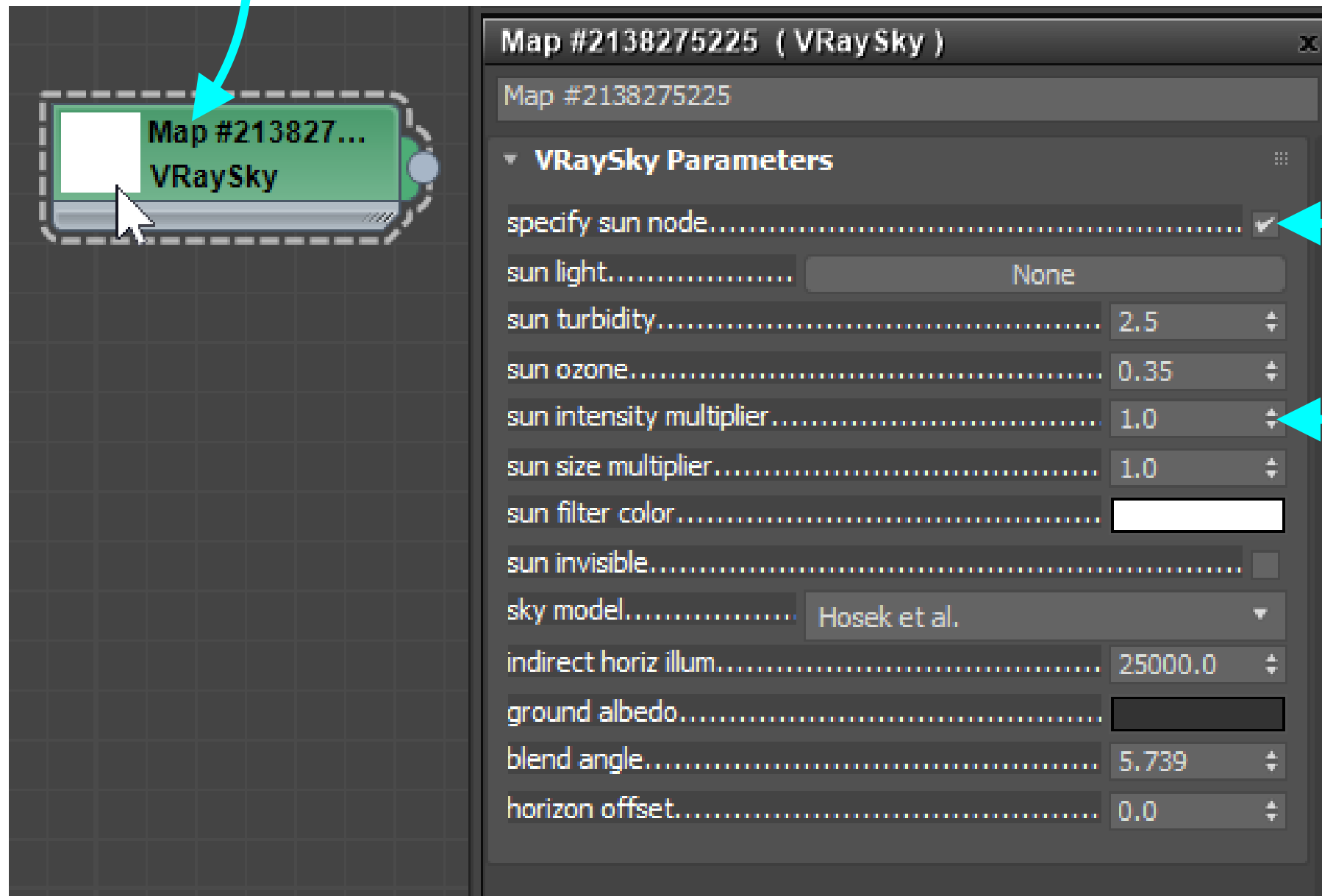
Mutliplier 10.0 a little dark, but the result still ok

接下来我们在 Slate Material Editor 添加 V-RaySky

在 Material / Map Browser 输入 vray sky



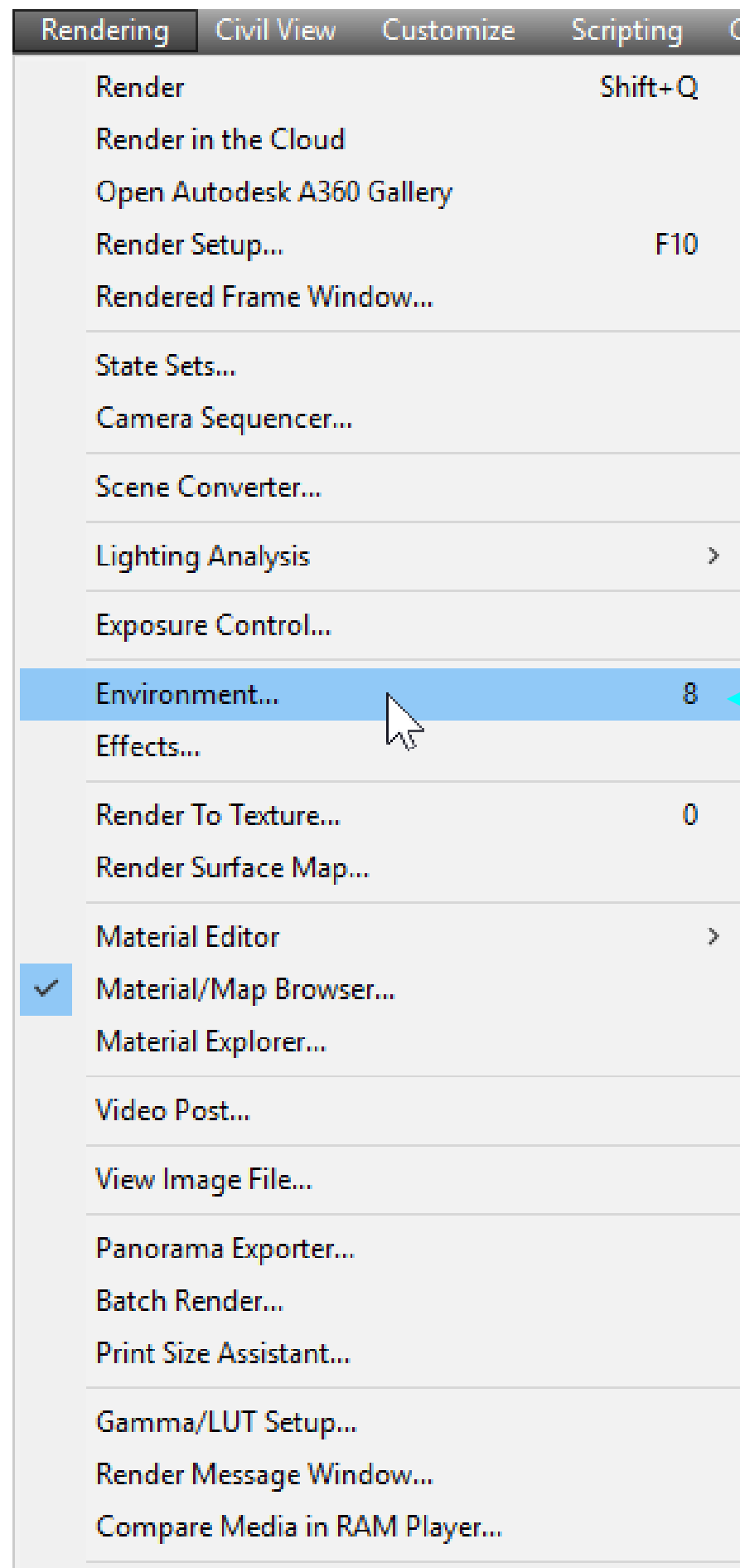
Double click "VRaySky"



勾选 specify sun node

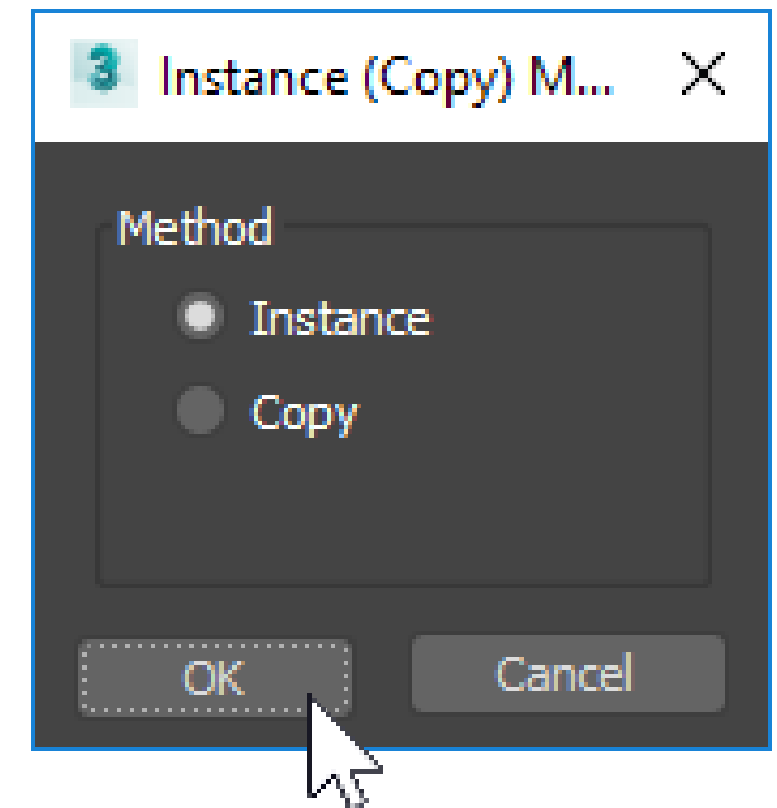
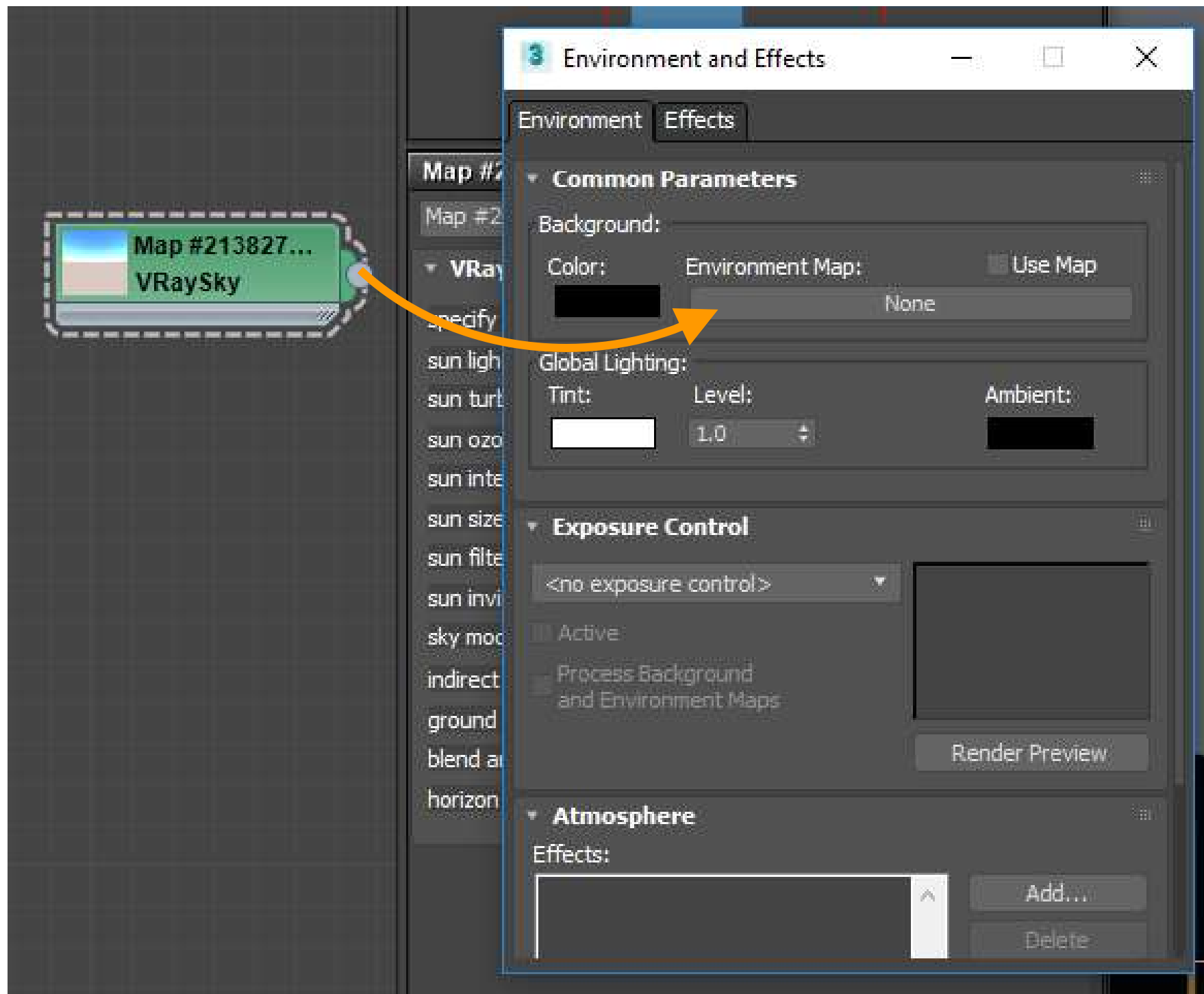
更改 sun intensity multiplier

个人个人的号码不一样，尤其是
光线角度和视图角度都需要花时间
仔细和细心才找到最好的数值
比方说我的，研究好几次
sun intensity multiplier : 0.05

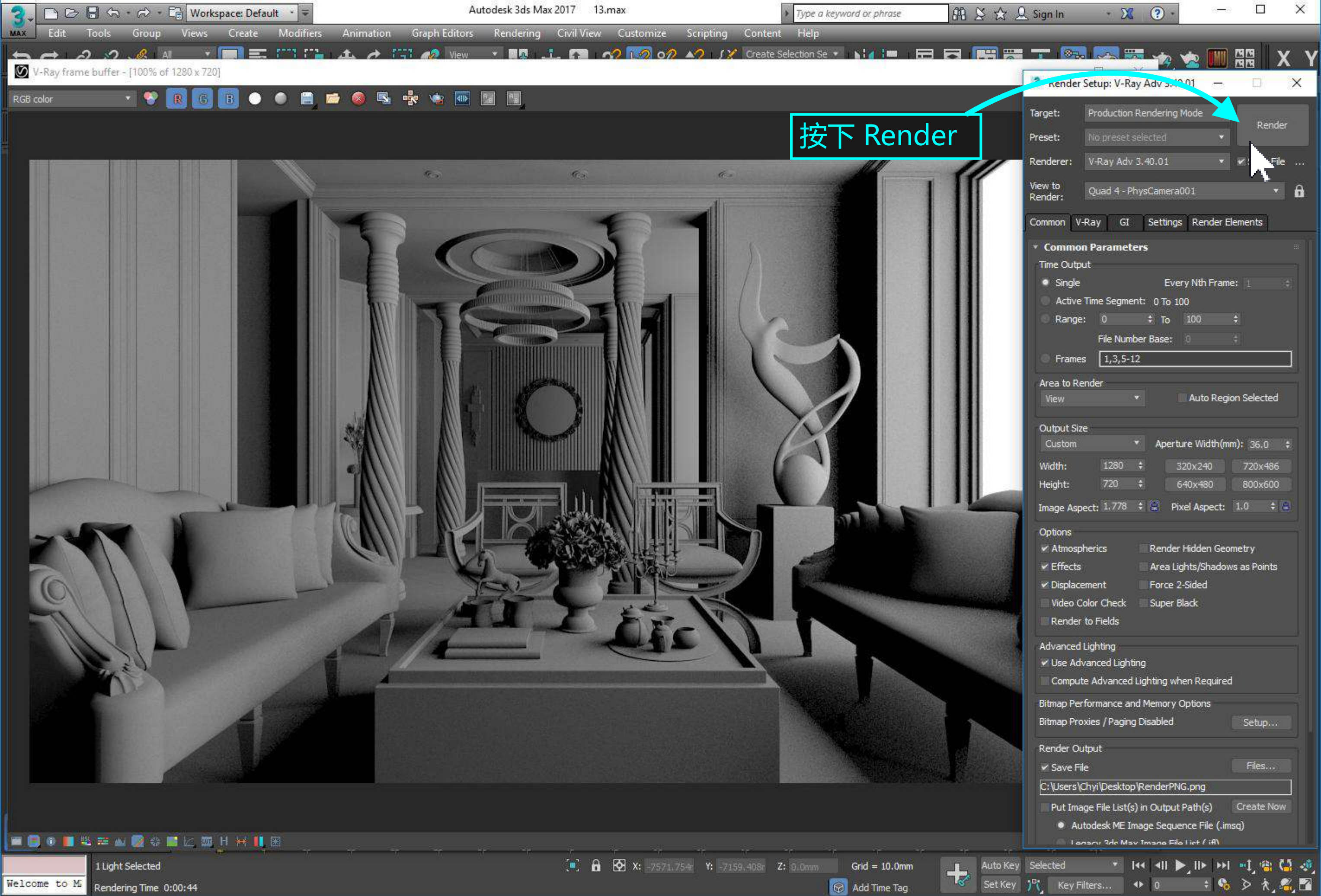


现在我们进入 Enviroment

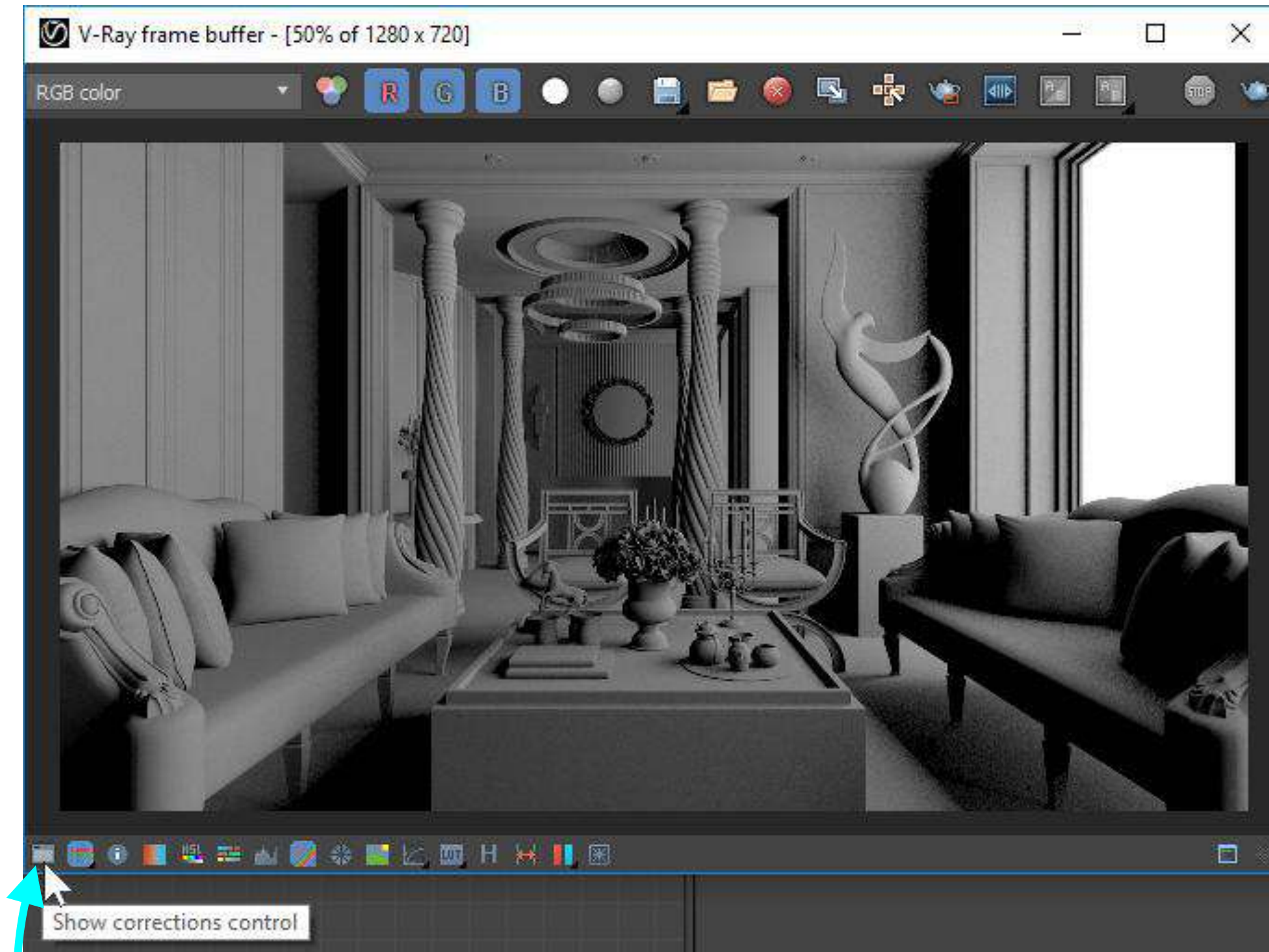
把 VRaySky 拉到 Environment Map 下方



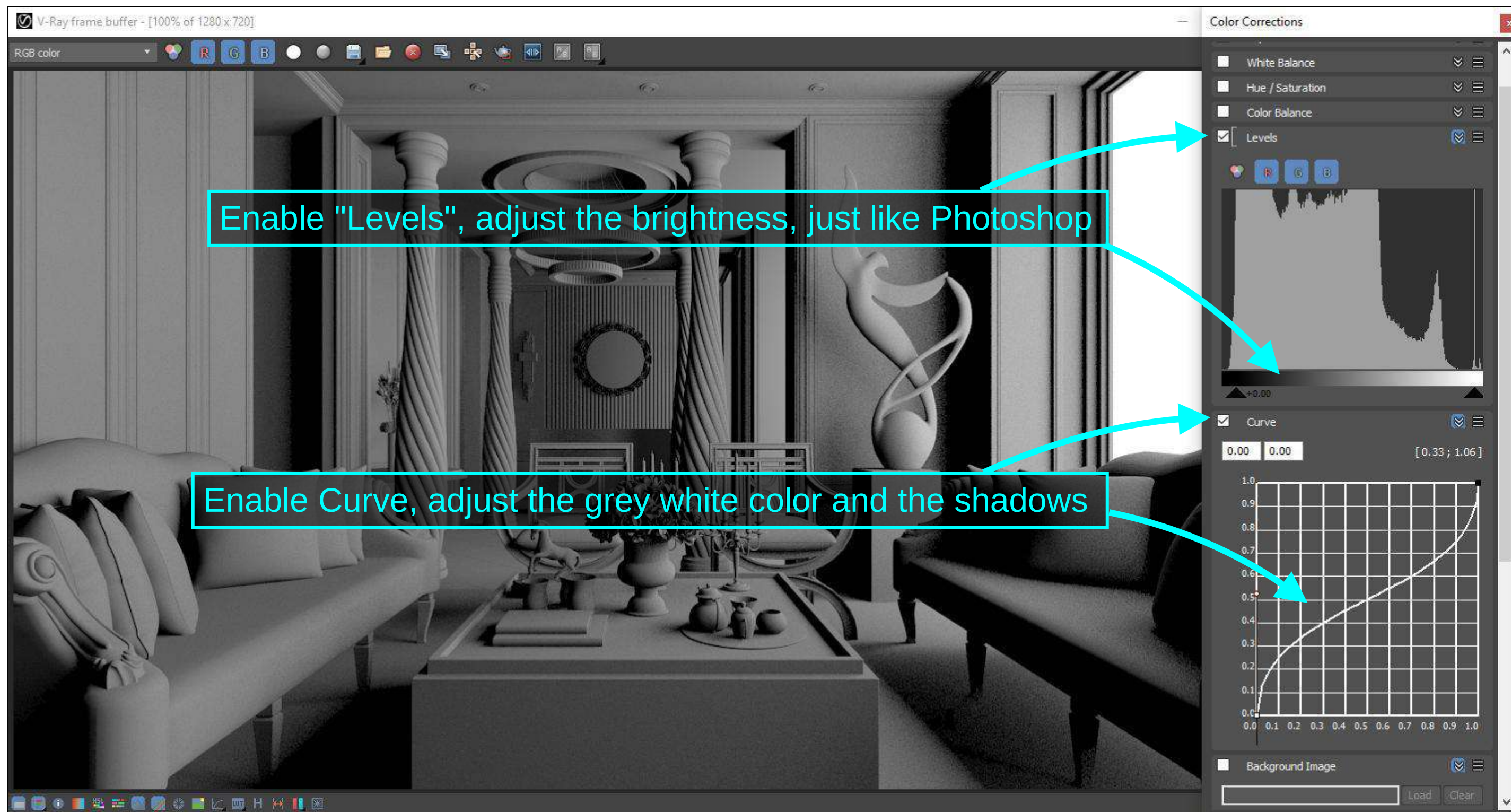
选 Instance, 然后按 OK



After finish rendering, the next step is to do some light adjustments



Click "Show correction control"

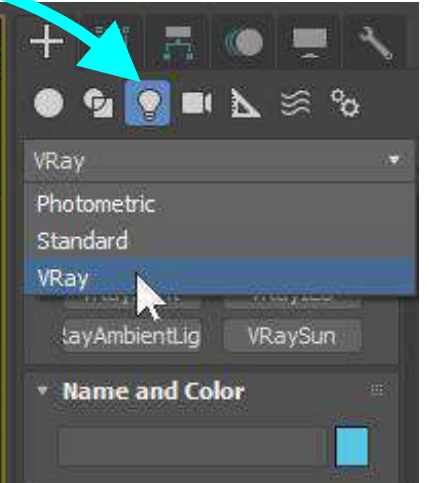
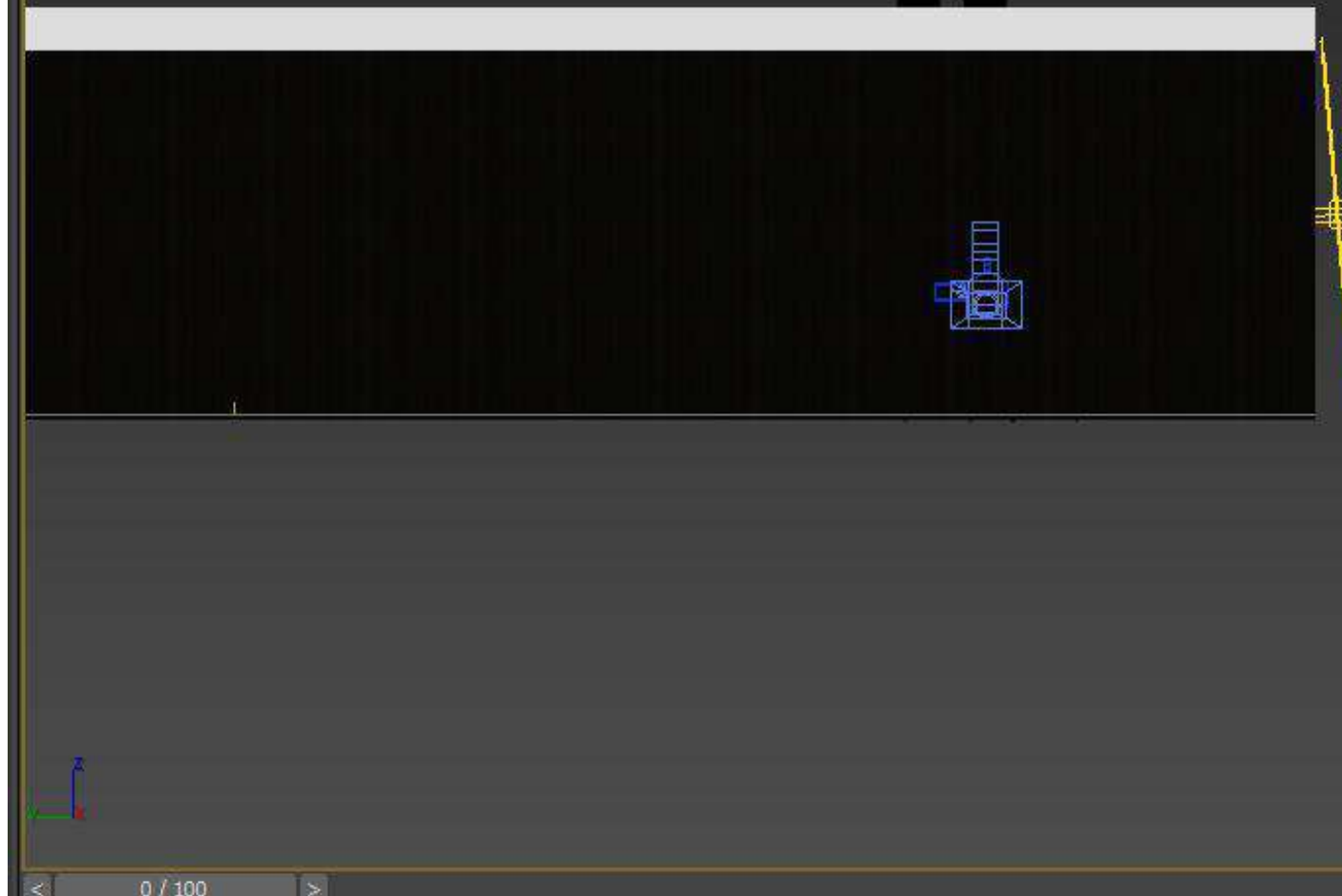


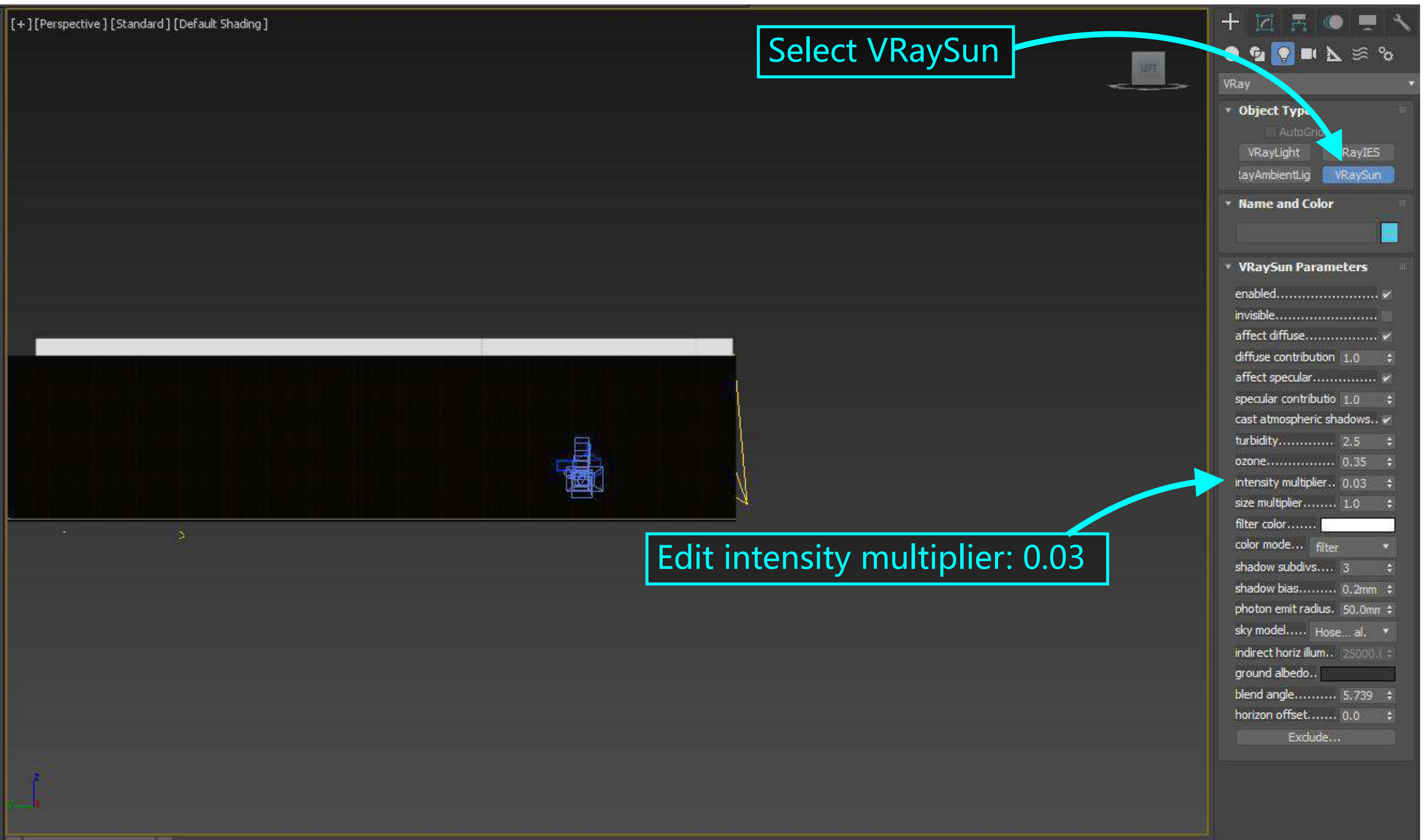
After this, add VRaySun

[+][Left][Standard][Default Shading]

Switch to orthographic view, press "Lights" and click VRay

Remember, before add VRay, you must switch to orthographic view

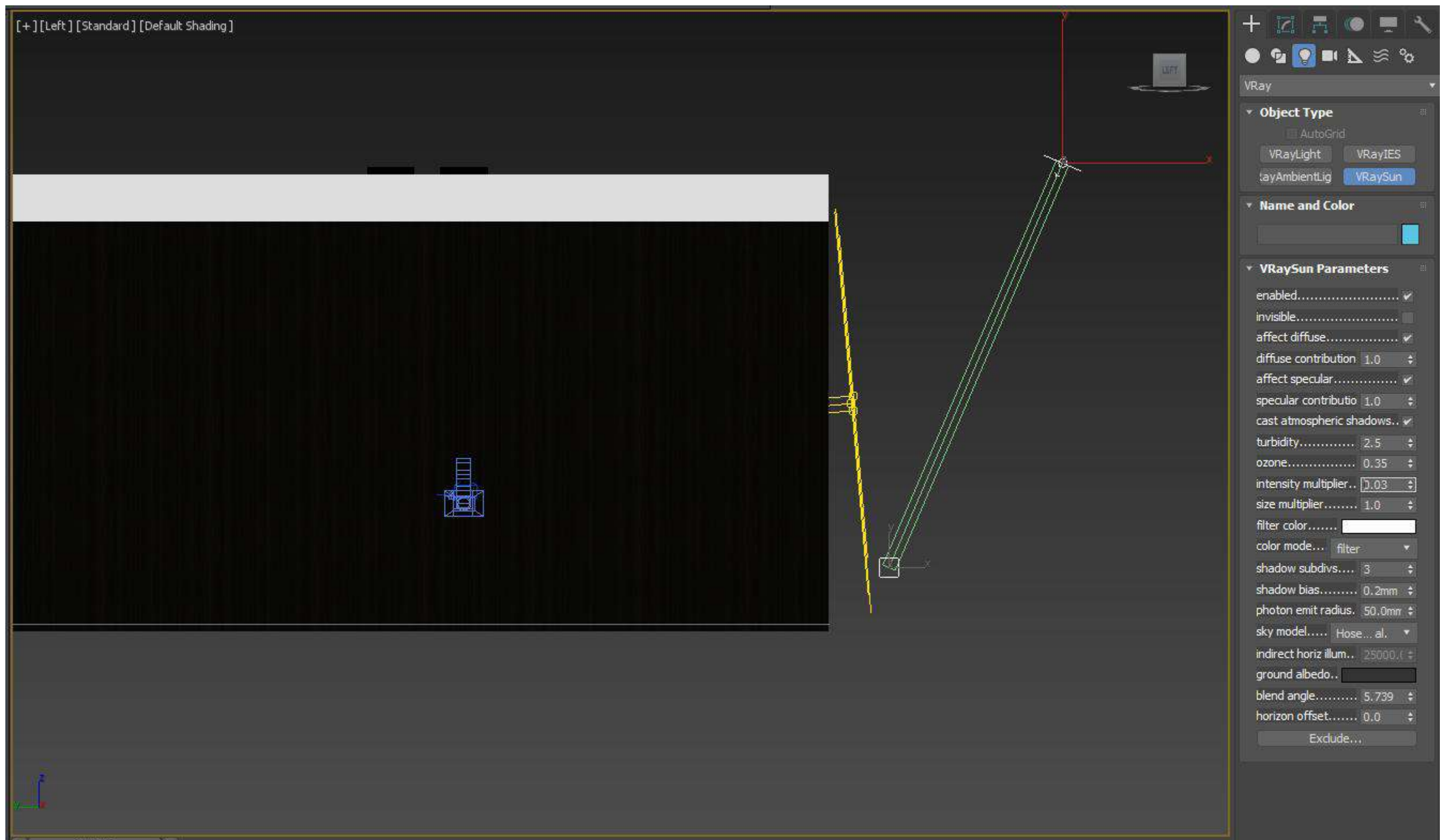


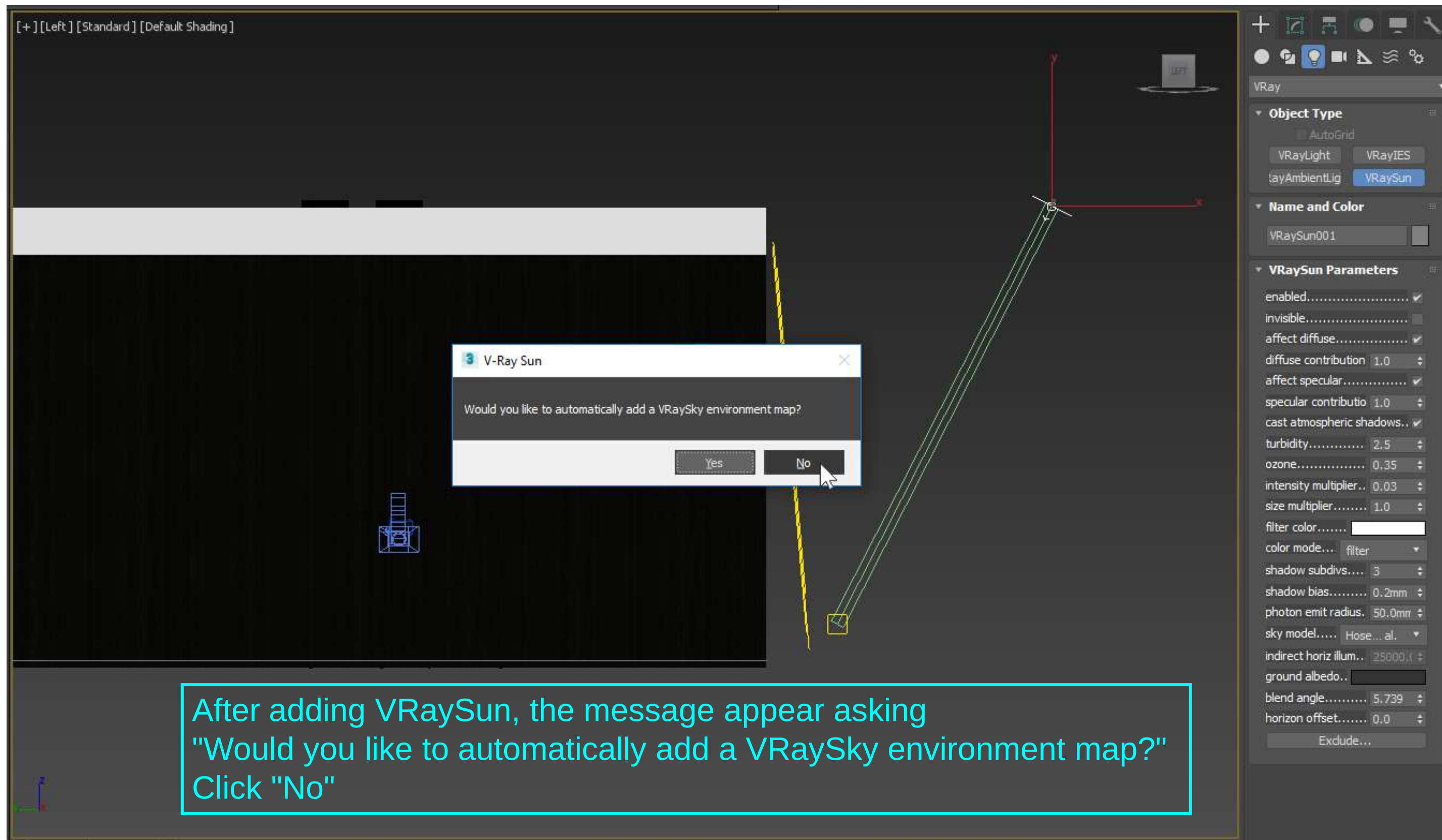


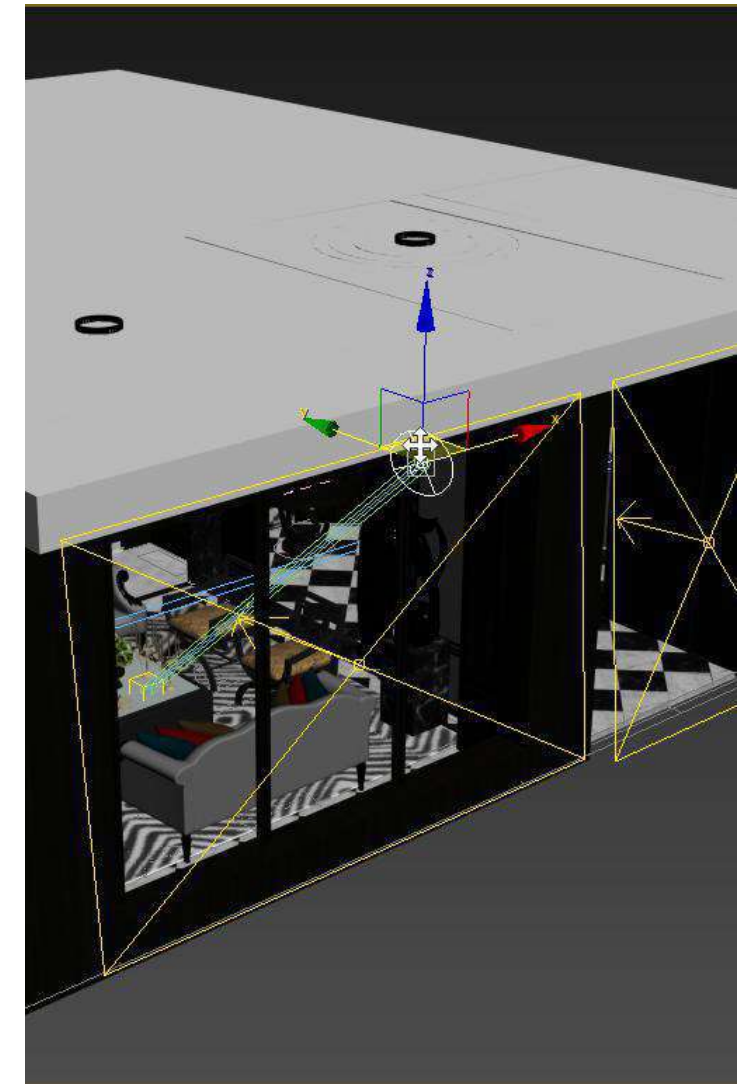
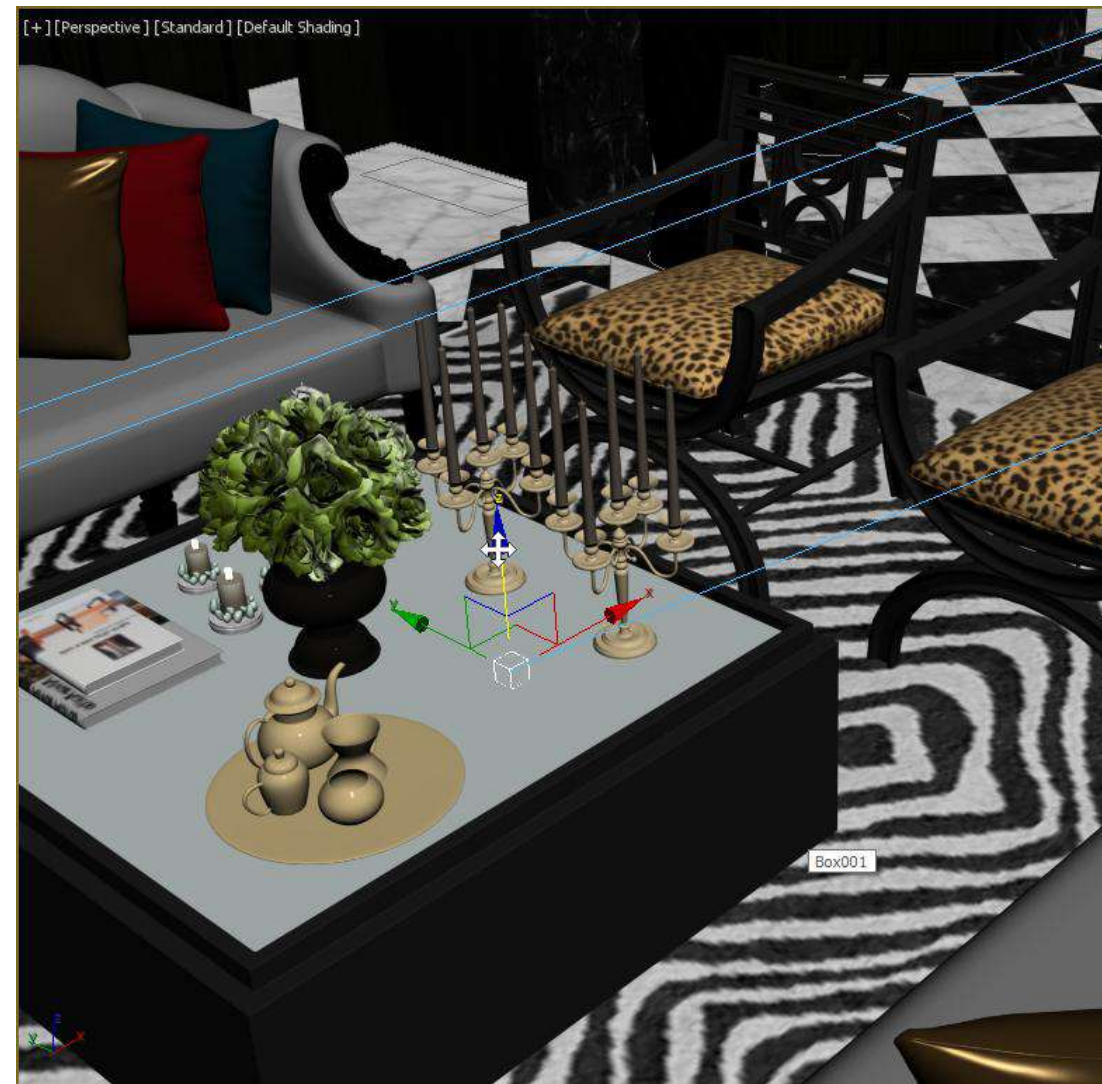
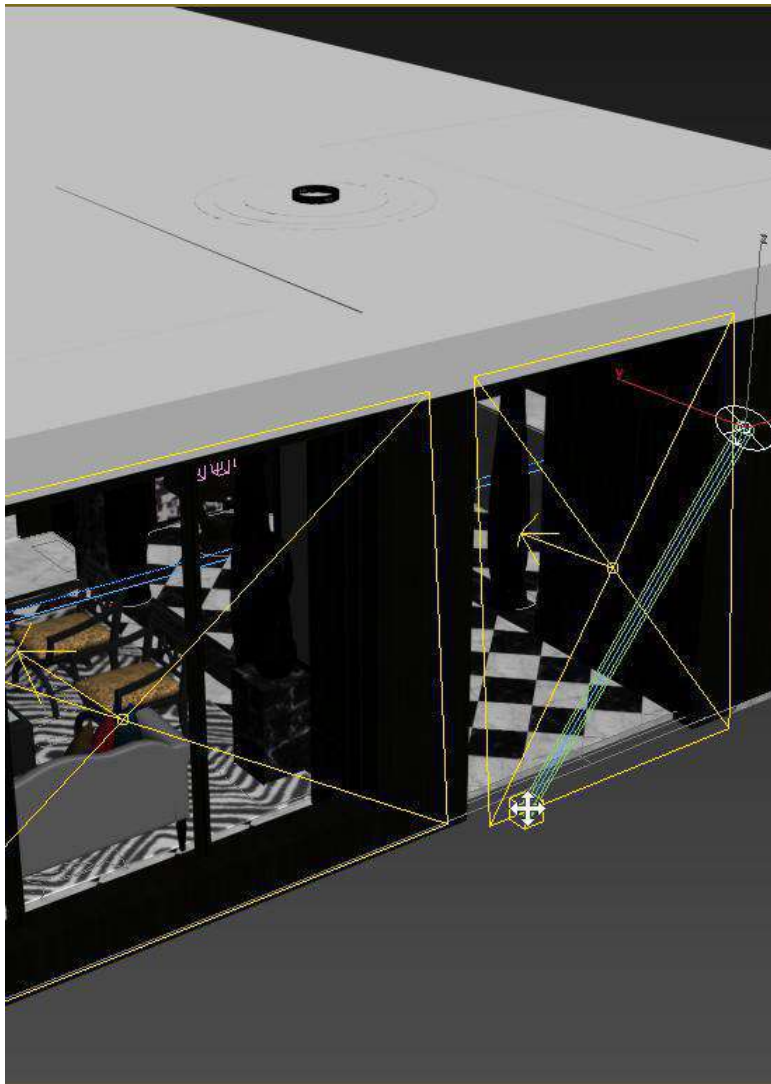
Select V-RaySun

Edit intensity multiplier: 0.03

Add V-RaySun into viewport







Switch to "P" (Perspective), adjust VRaySun, and move the sunlight into the room



It depends on you where the sunlight hit the spot
If there is possible, set the V-RaySun spot hit on
"Rule of Third" or "Golden Ratio"

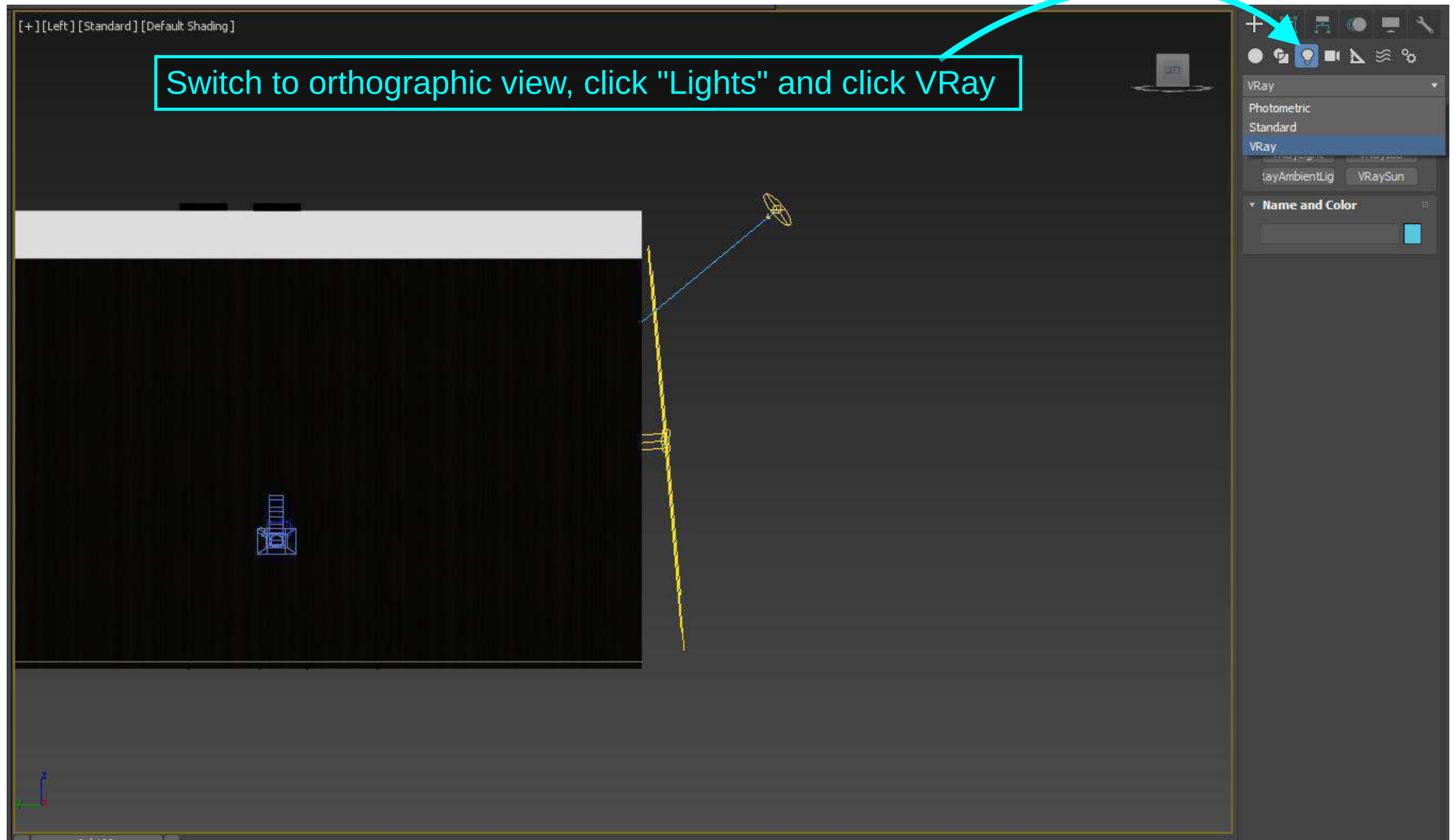


After finish rendering, the next step we going to V-RayIES

V-RayIES is the interior lights

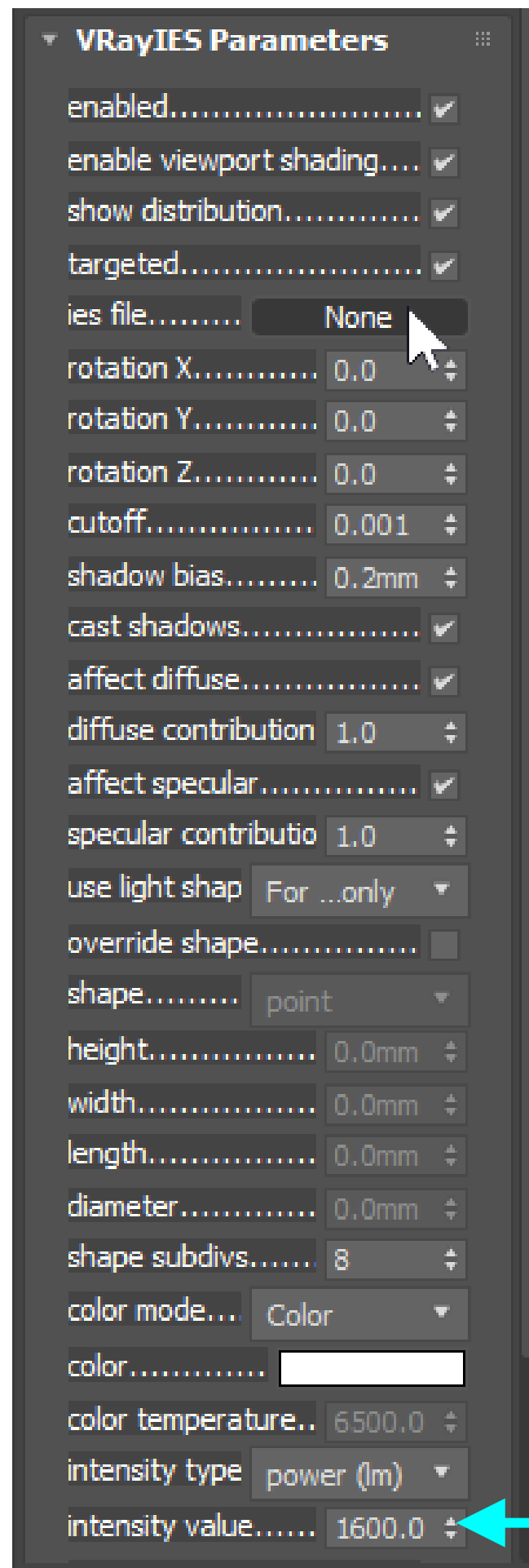
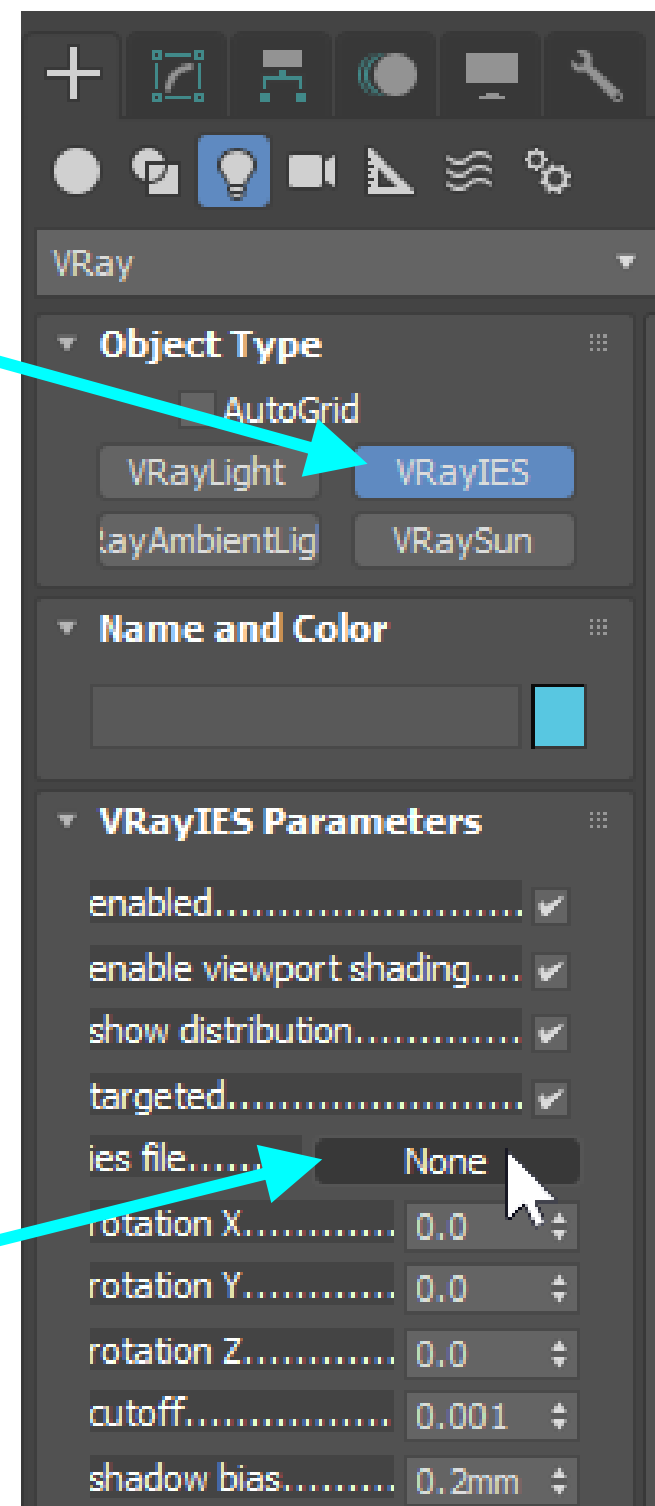
First, there are two types of interior lights:

1. Fluorescent Lights - White Color
2. Decorative Lights - Yellow/Orange Color

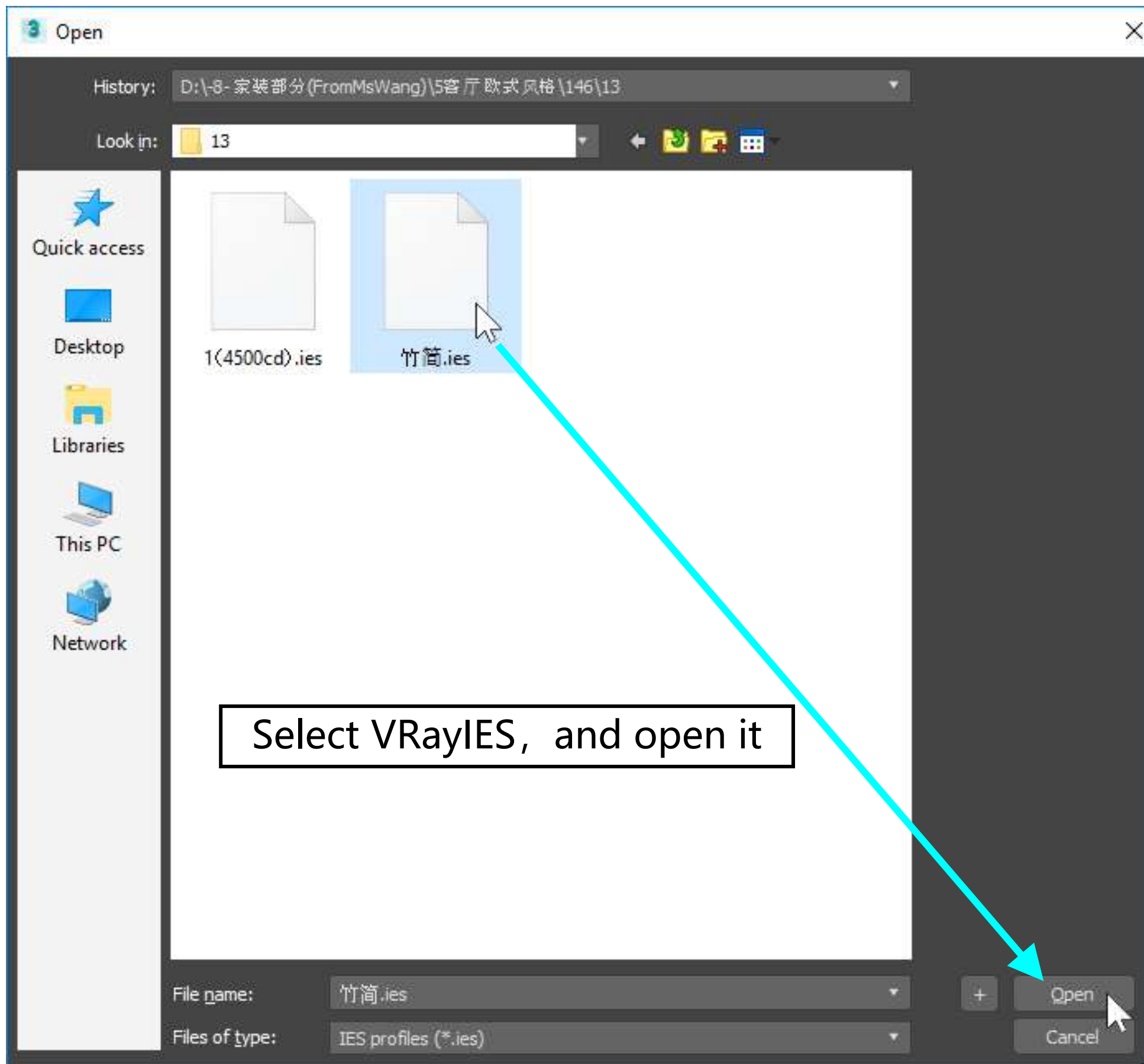


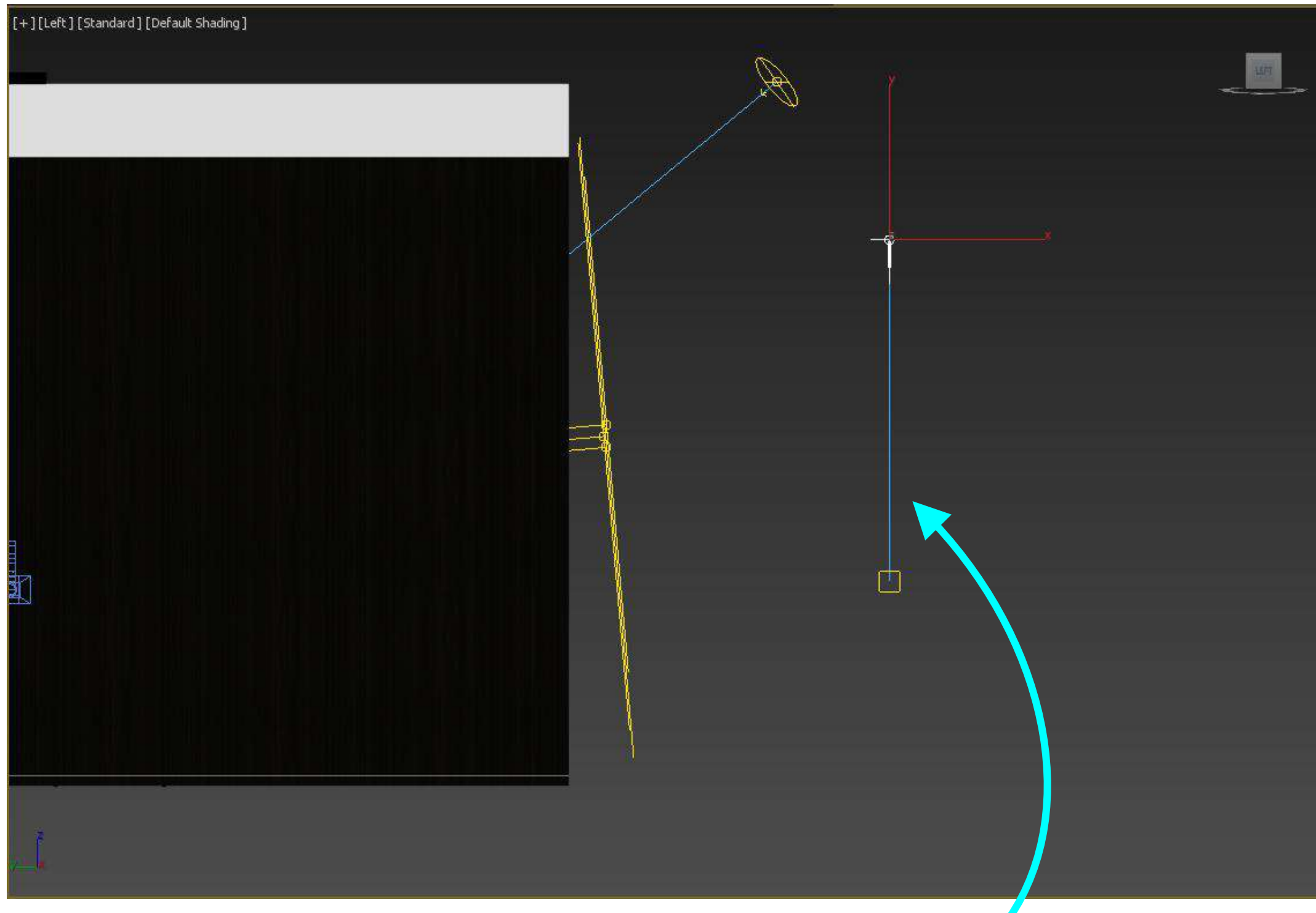
Select VRayIES

Add IES file

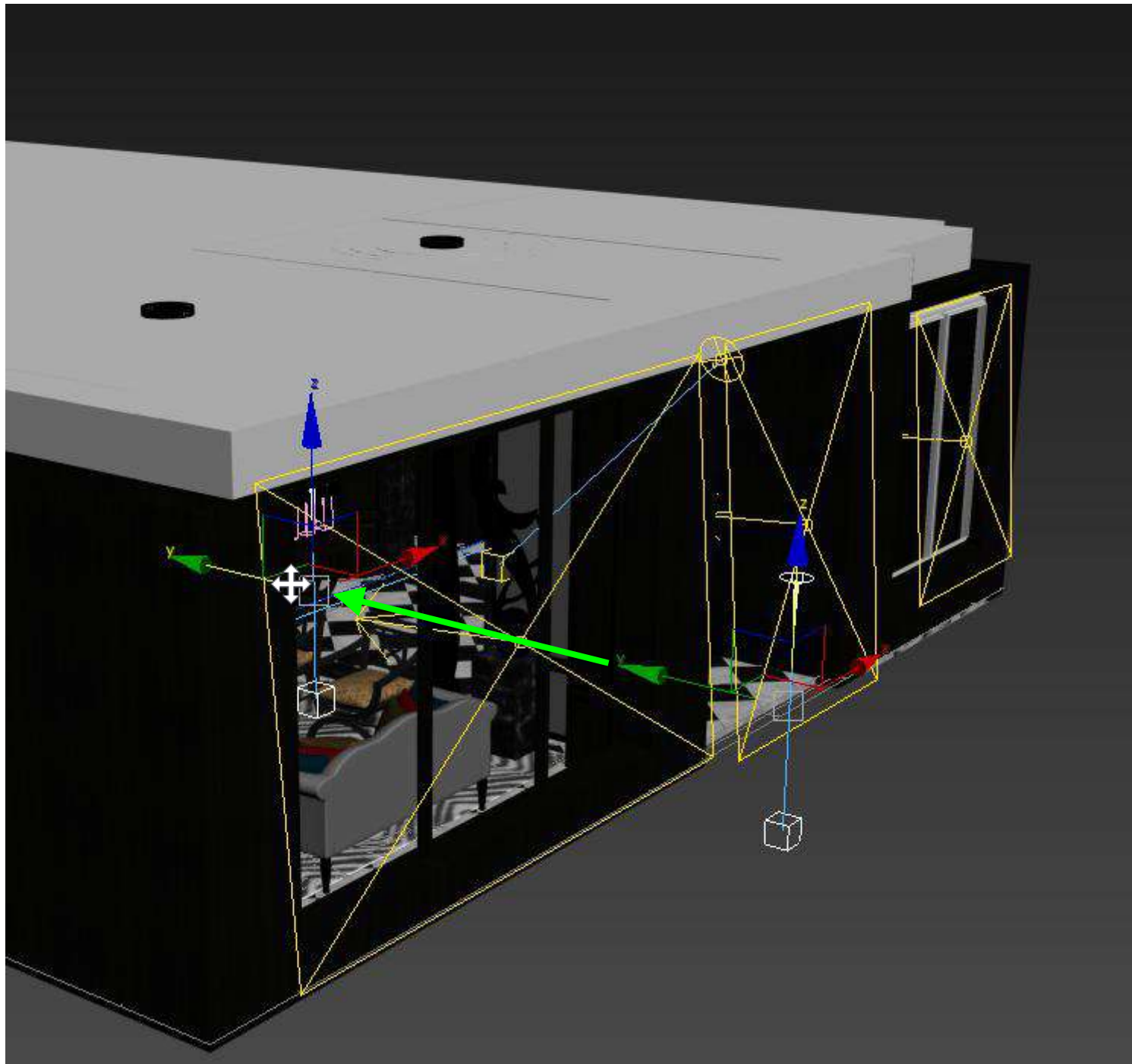


Intensity value: 1600.0

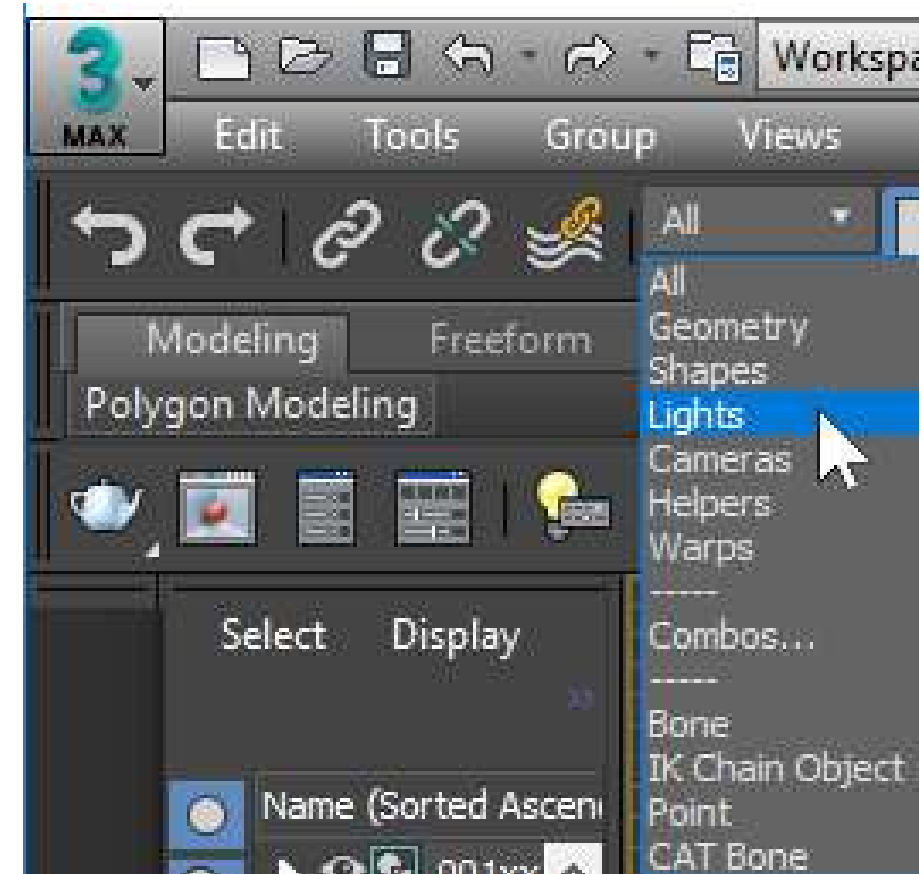


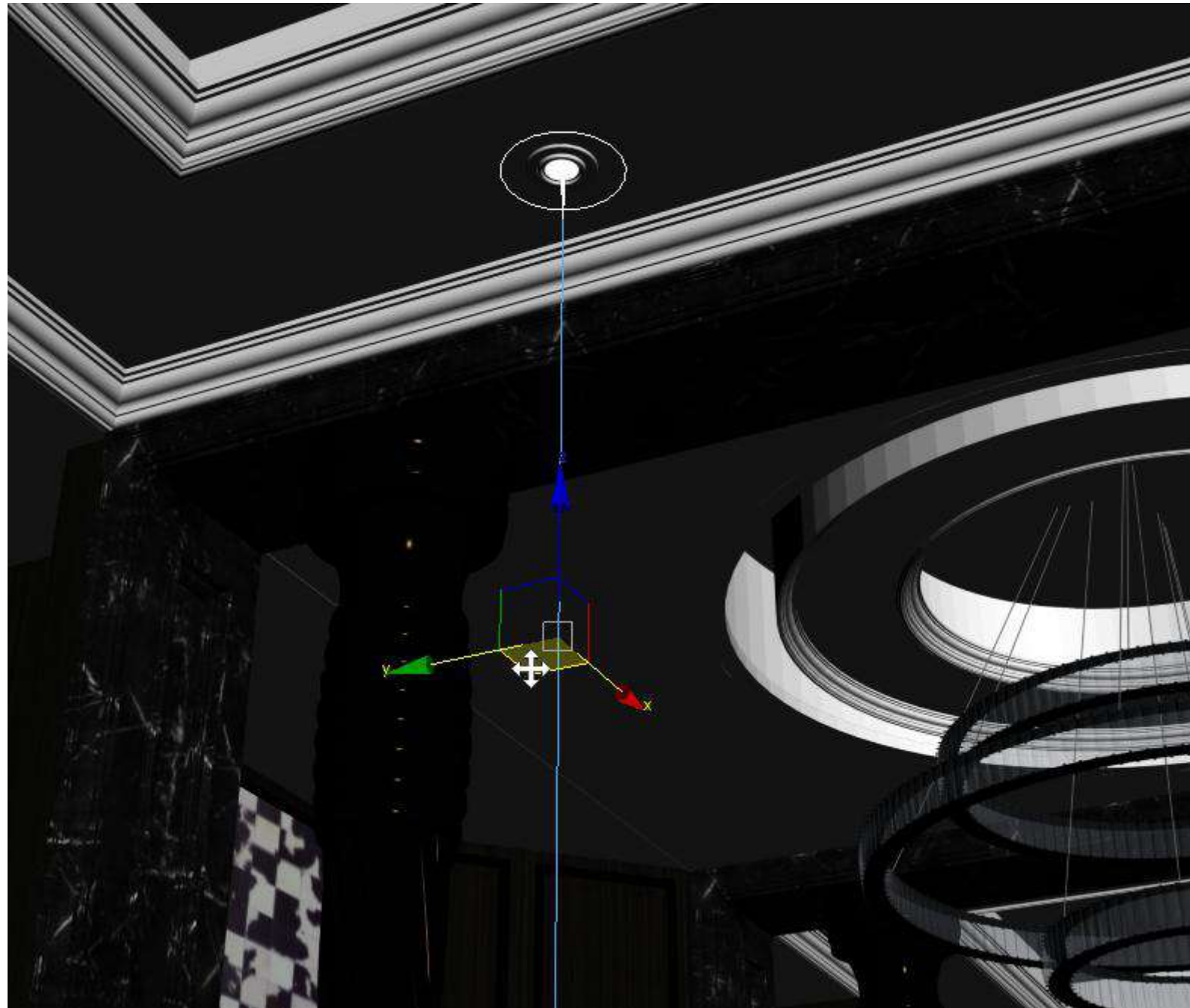


Drag the VRayIES in viewport, later we move it into house

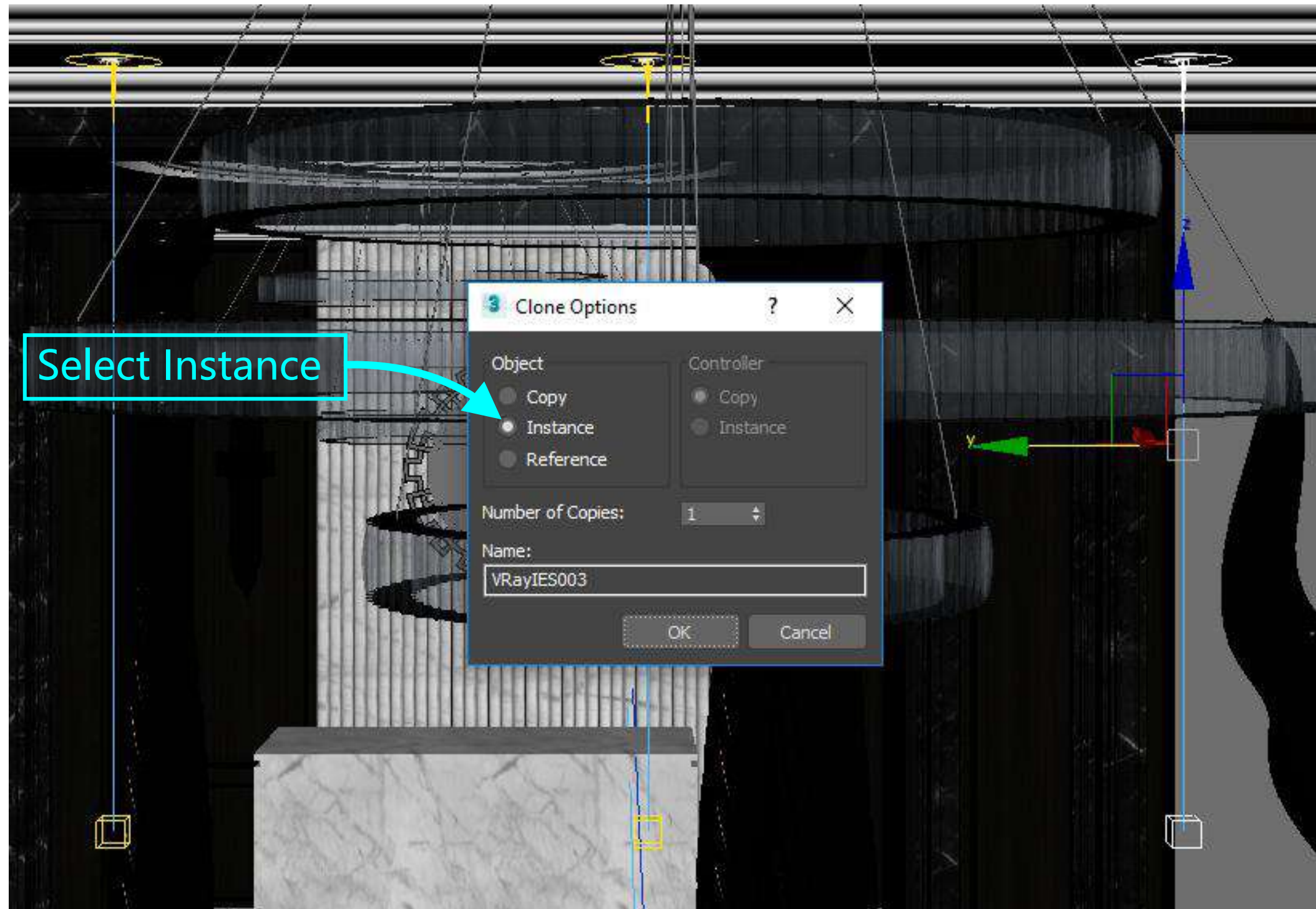


Moving VRayIES into house
And then switch to Lights
for adjustment

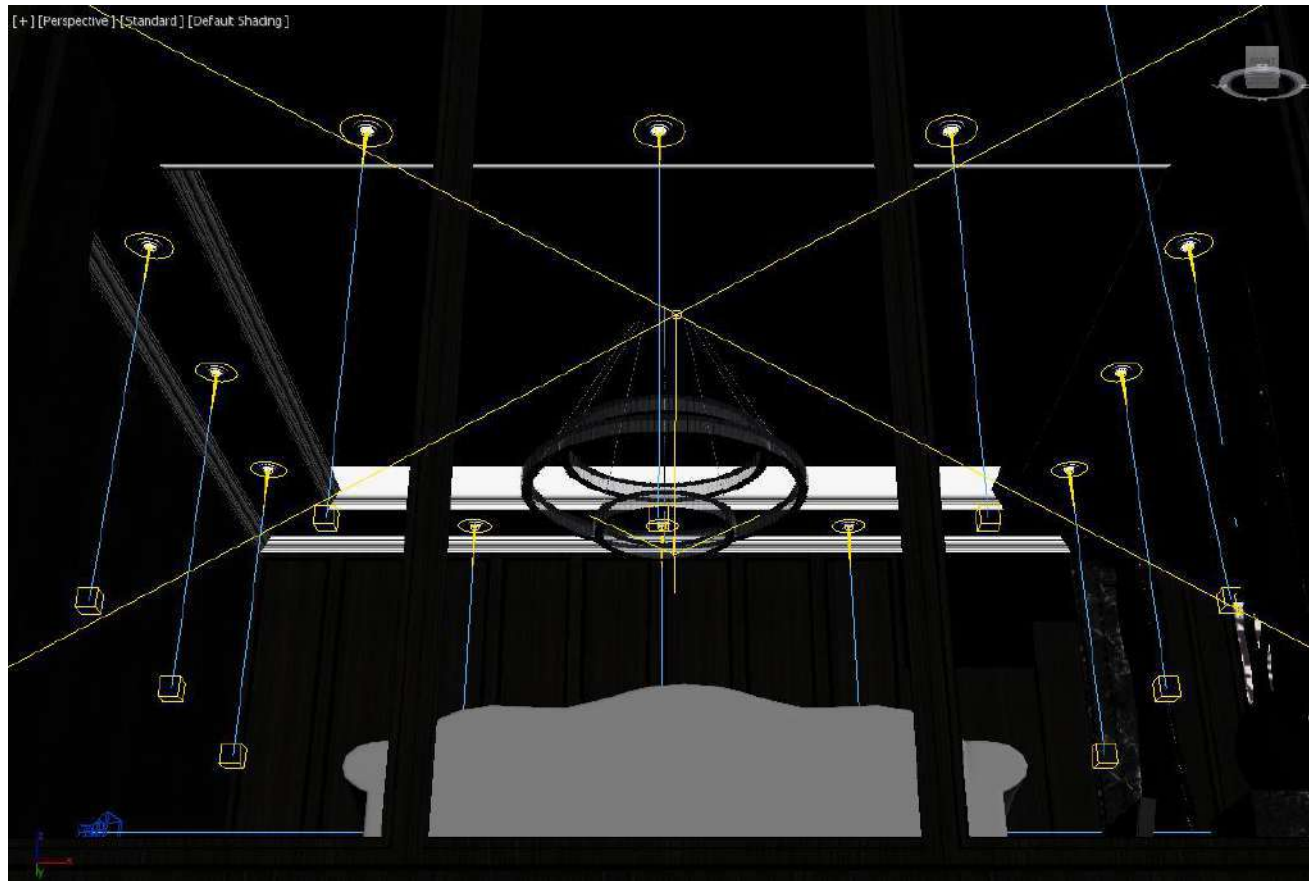




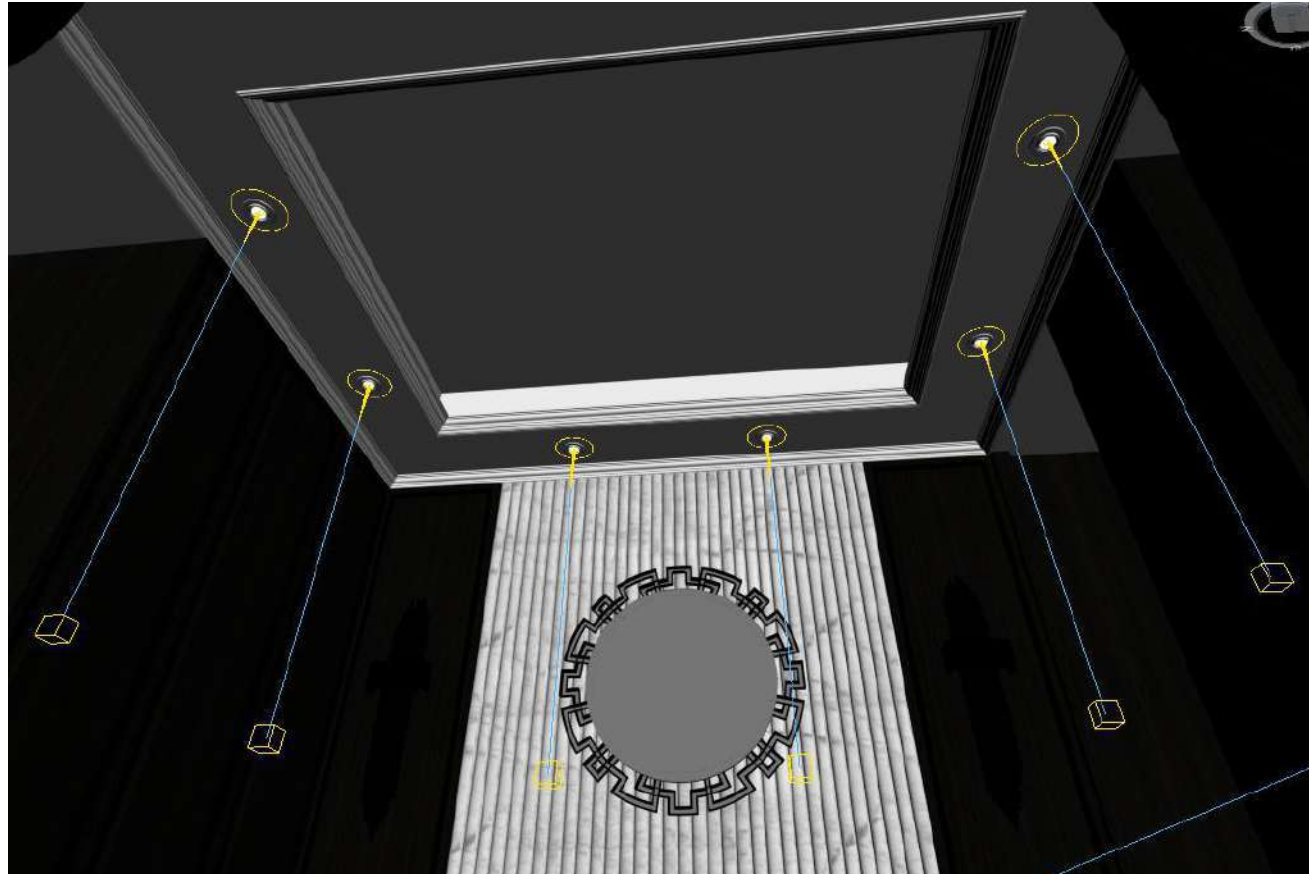
Carefully when moving VRayIES and adjust to correct position

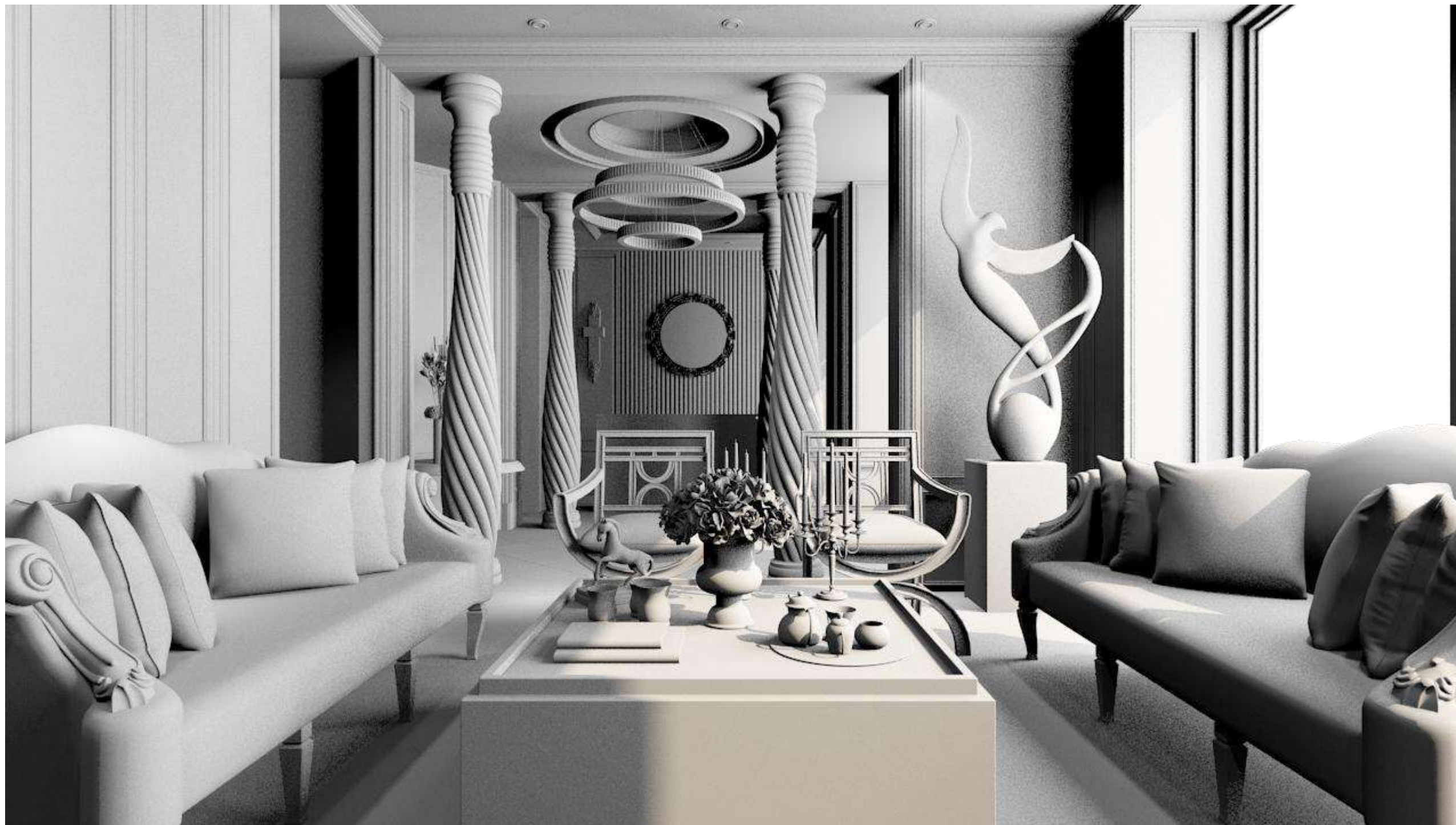


Clone more and put them to other light bulbs

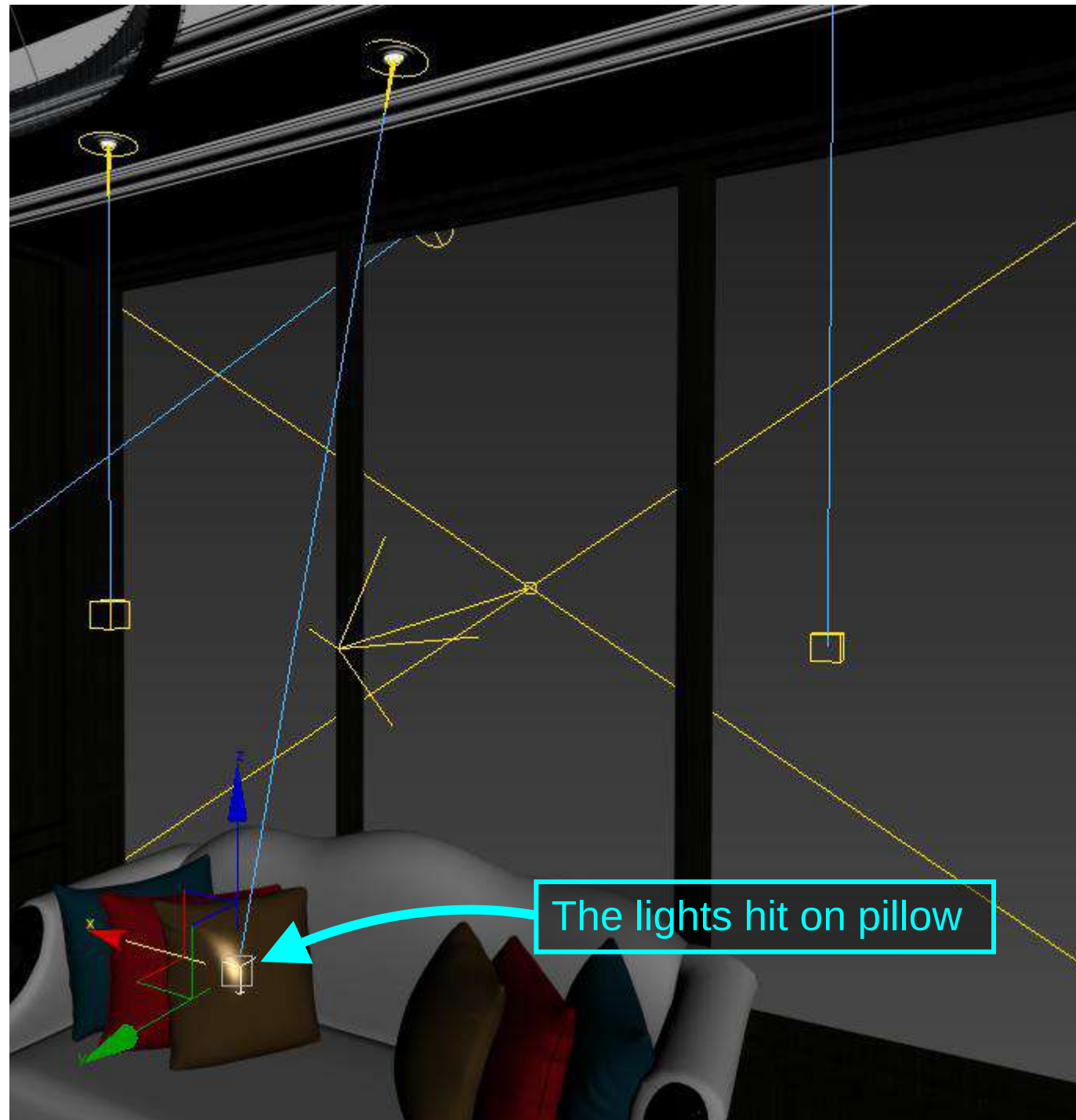


After finish clone
Now try to rendering





Eh? Only one light after rendering?
Don't worry, we can adjust the V-RayIES direction

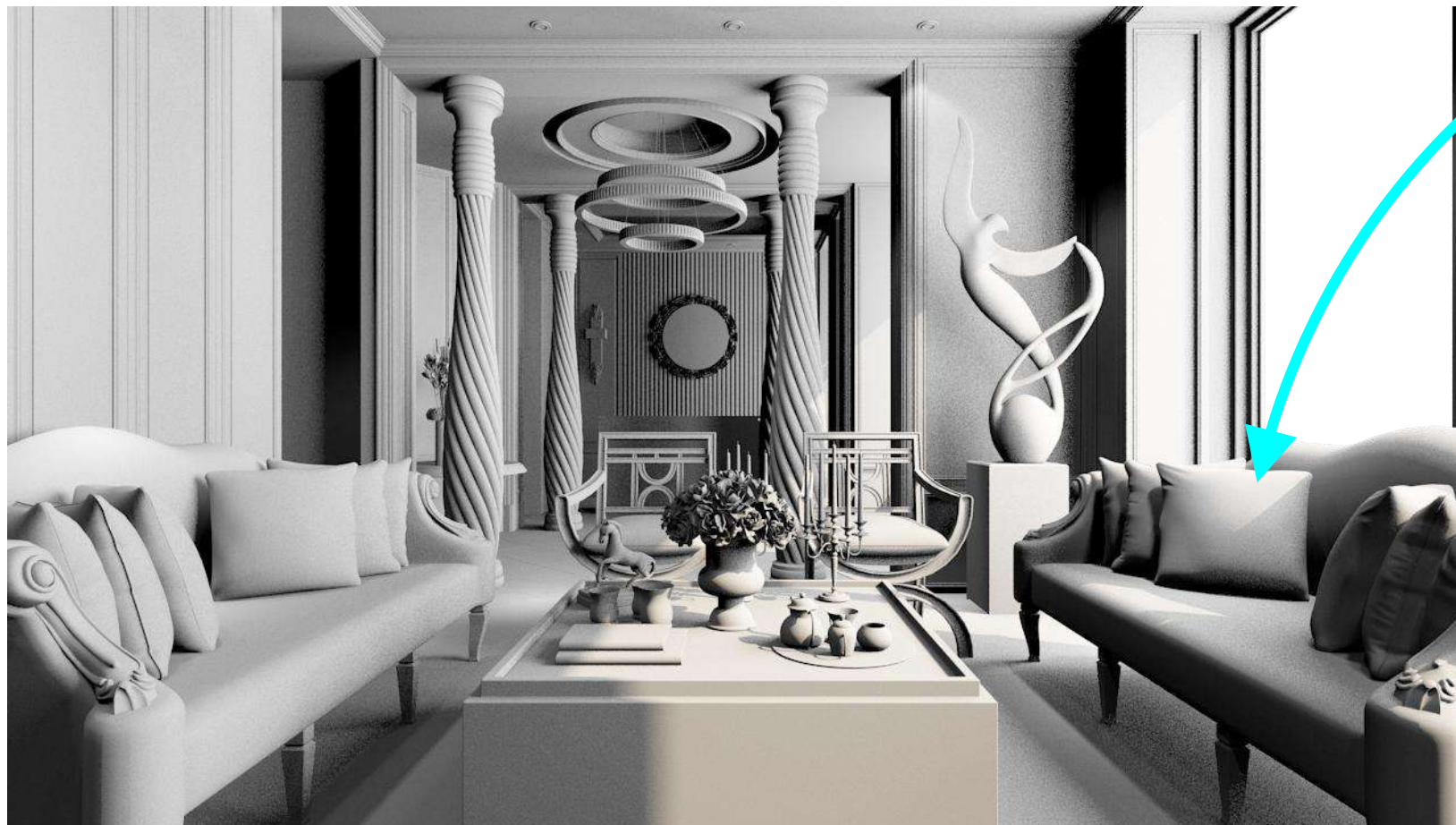


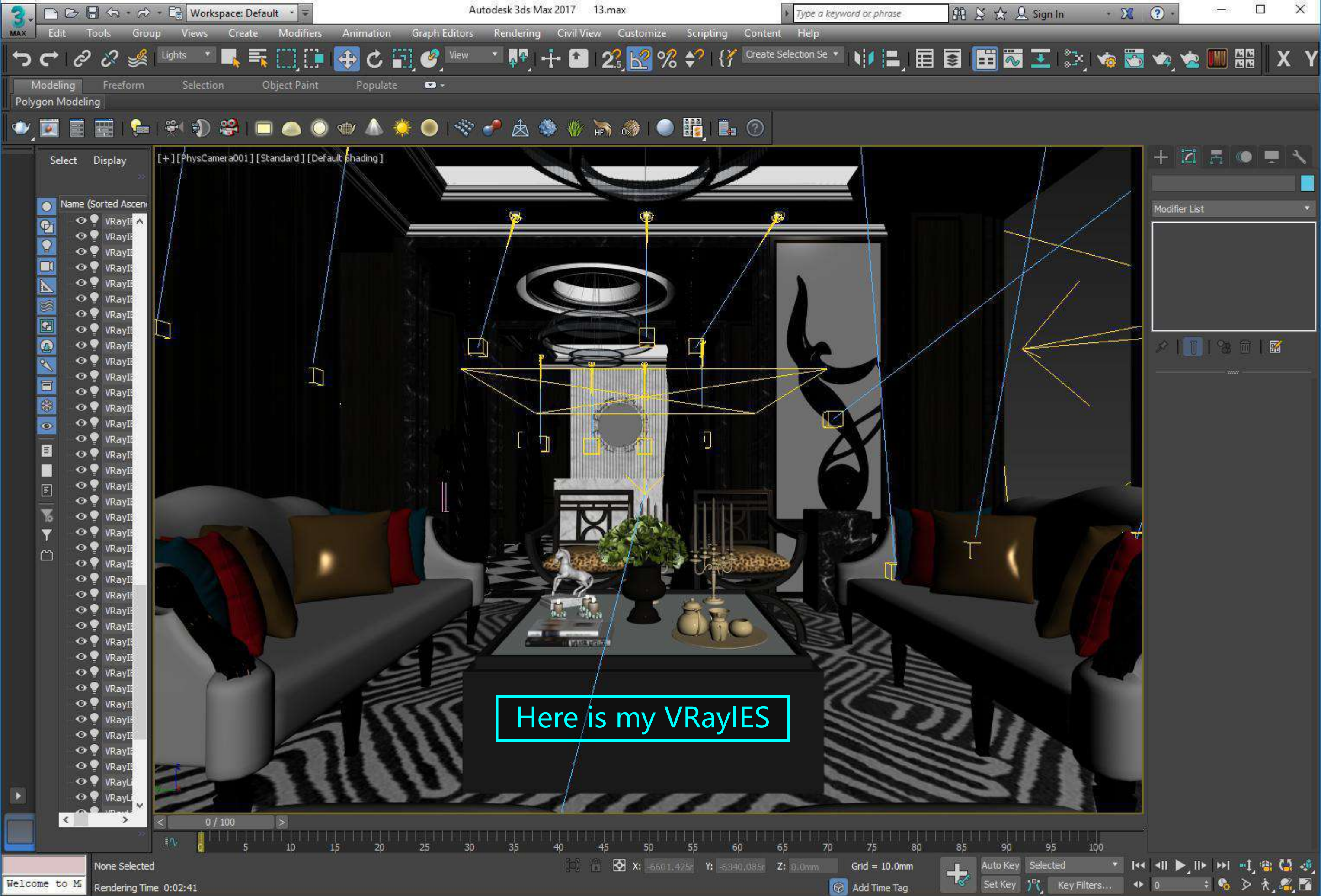
Try move the V-RayIES on some object
And render it



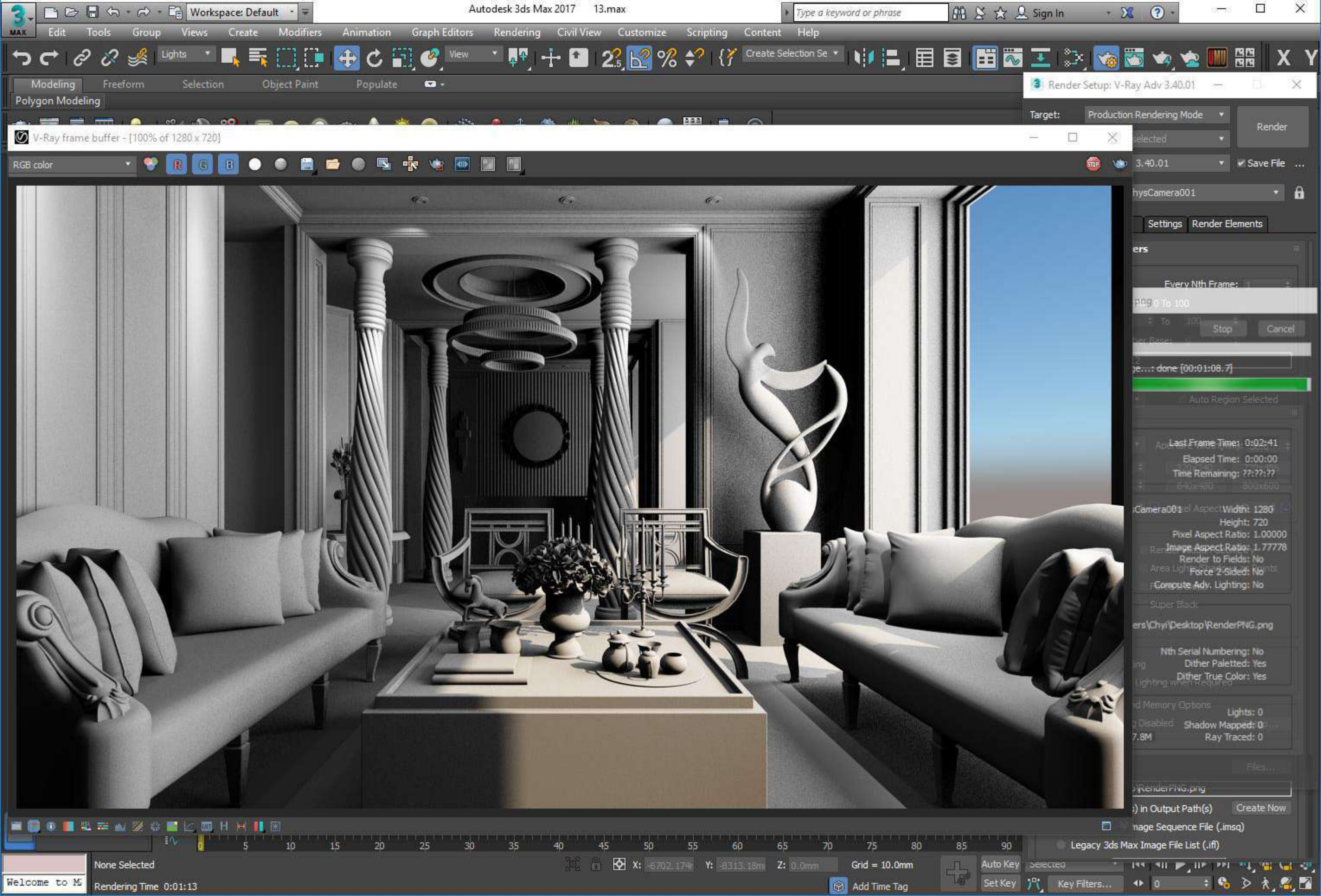
Now you can see the difference

The next, it is up to you adjust the VRayIES target

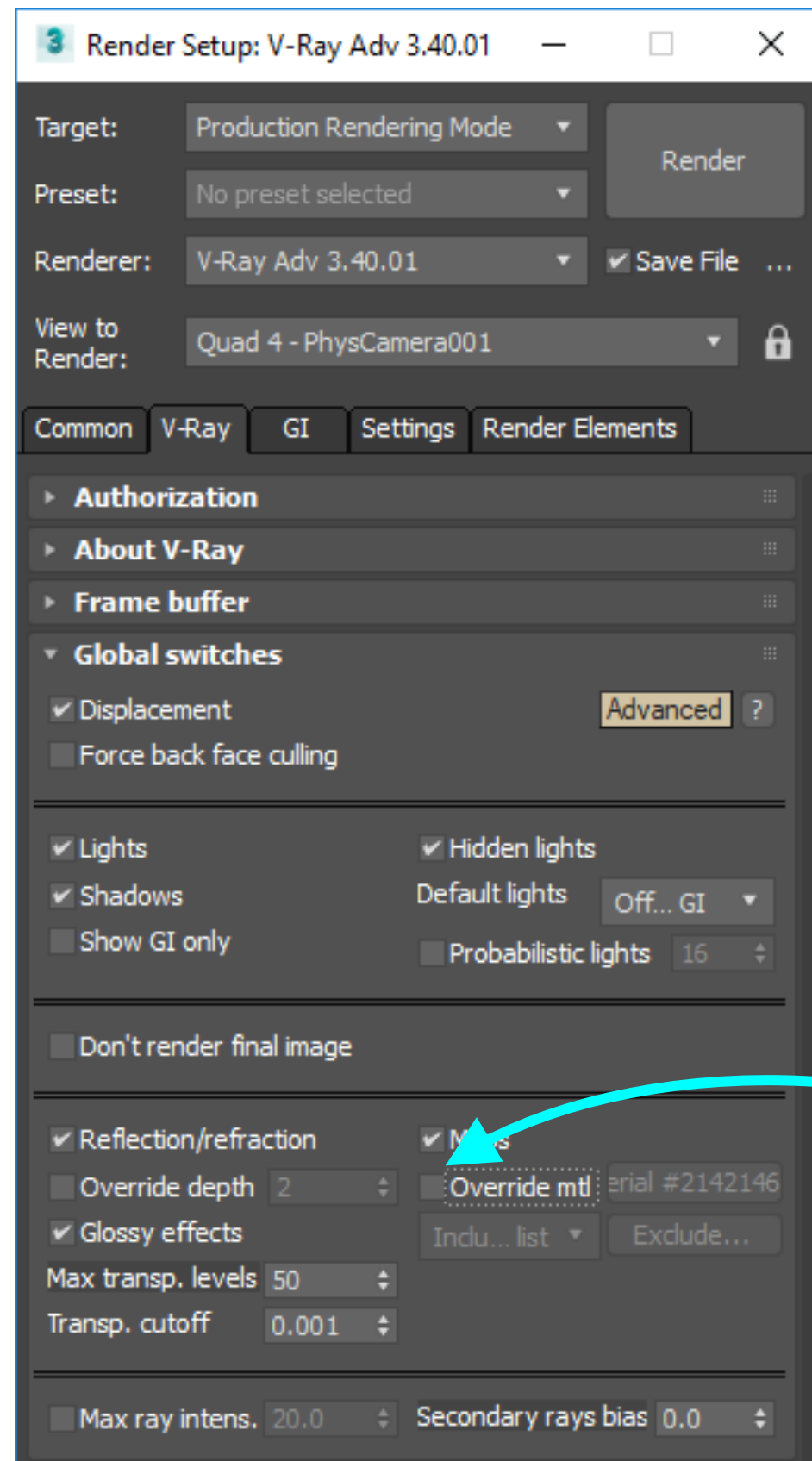




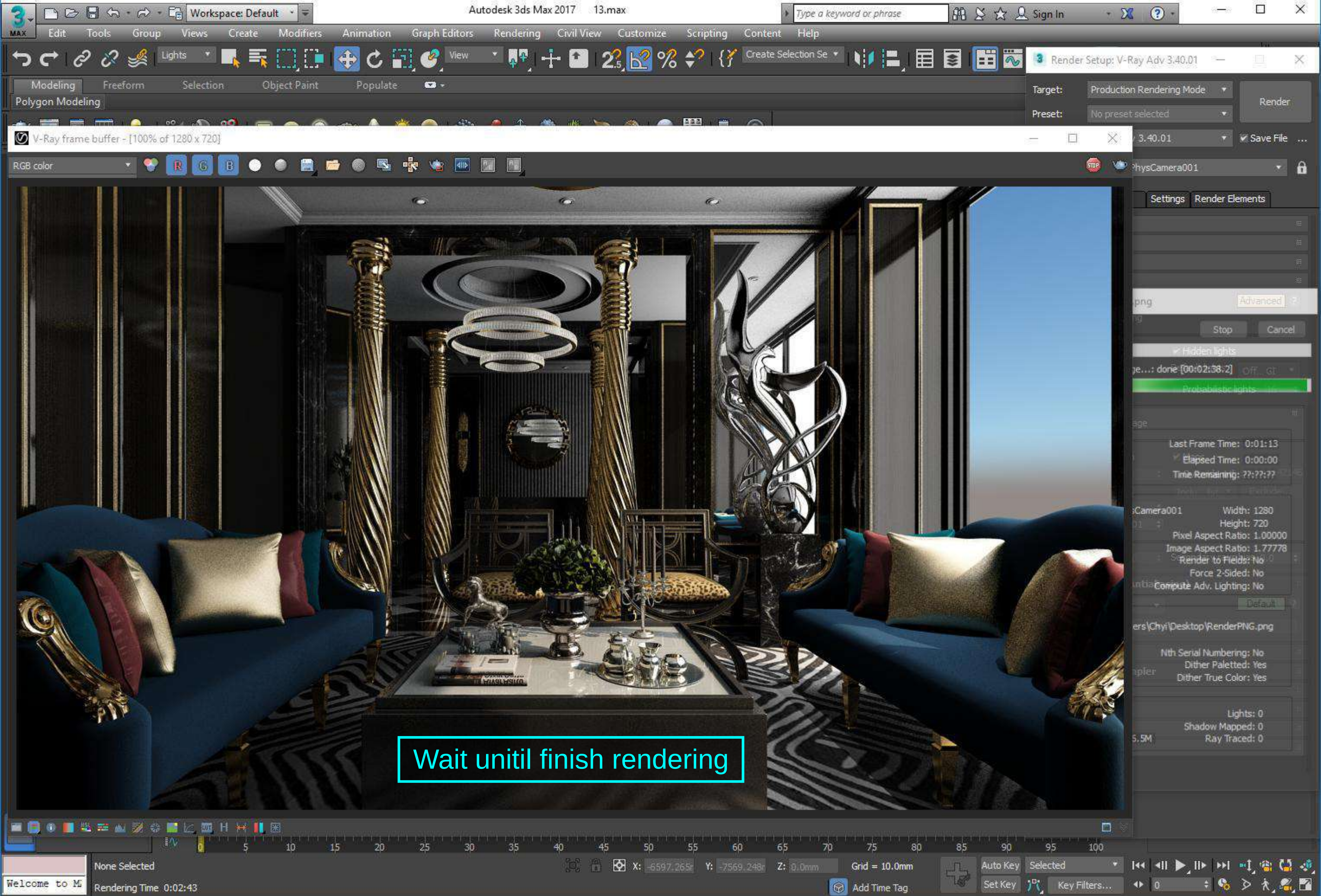
Here is my VRayIES



After finish rendering, we can try render it into color



Disable Override mtl
And click "Render"



Wait until finish rendering



Done

Next, we going to learn how to quick rendering in 2K HD image

First step, save white box (or grey rendering) 640 x 480 into irradiance map

Click Common

Click 640x480

3 Render Setup: V-Ray Adv 3.40.01

Target: Production Rendering Mode

Preset: No preset selected

Renderer: V-Ray Adv 3.40.01

View to Render: Quad 4 - PhysCamera001

Render

Save File ...

Common V-Ray GI Settings Render Elements

Common Parameters

Time Output

Single Every Nth Frame: 1

Active Time Segment: 0 To 100

Range: 0 To 100

File Number Base: 0

Frames 1,3,5-12

Area to Render

View Auto Region Selected

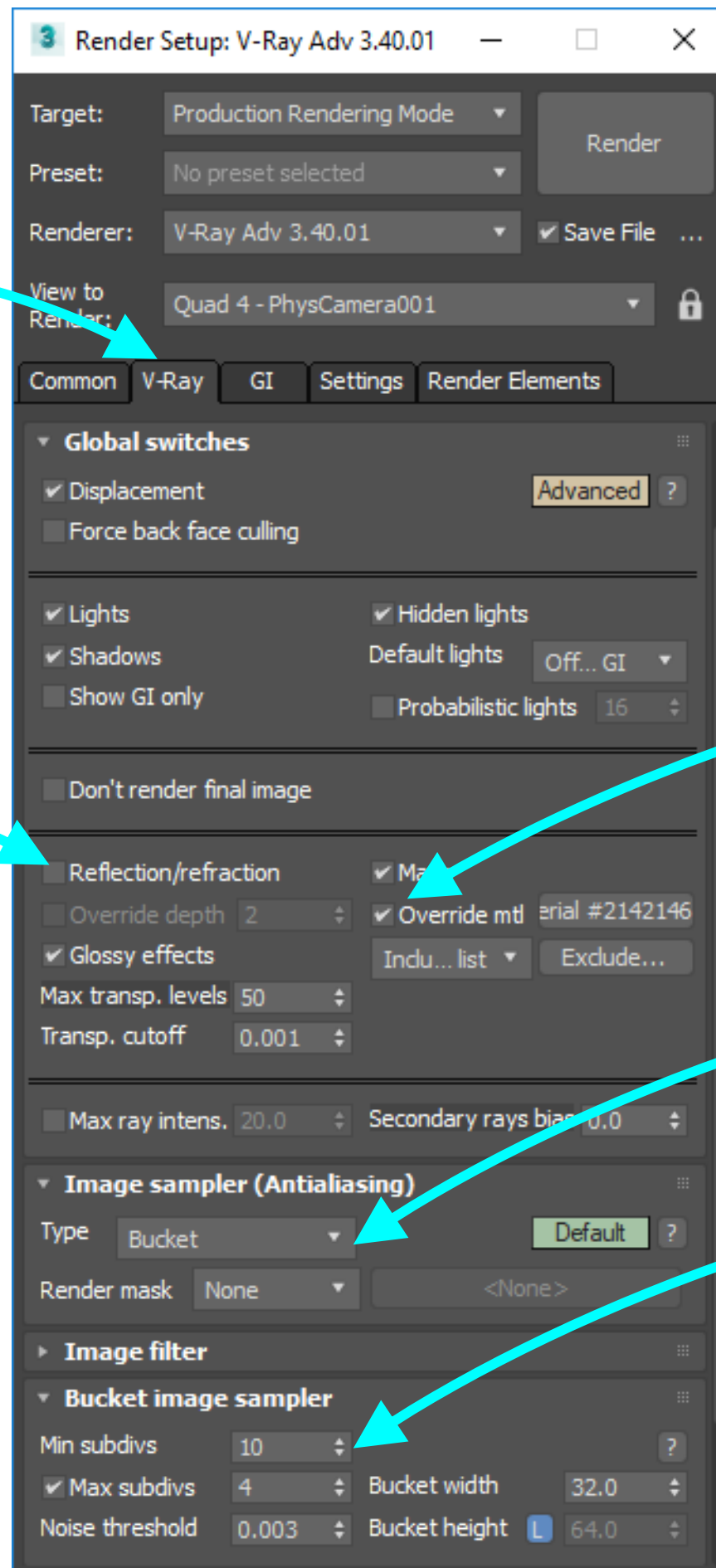
Output Size

Custom Aperture Width(mm): 36.0

Width: 640 320x240 720x486

Height: 480 640x480 800x600

Image Aspect: 1.333 Pixel Aspect: 1.0



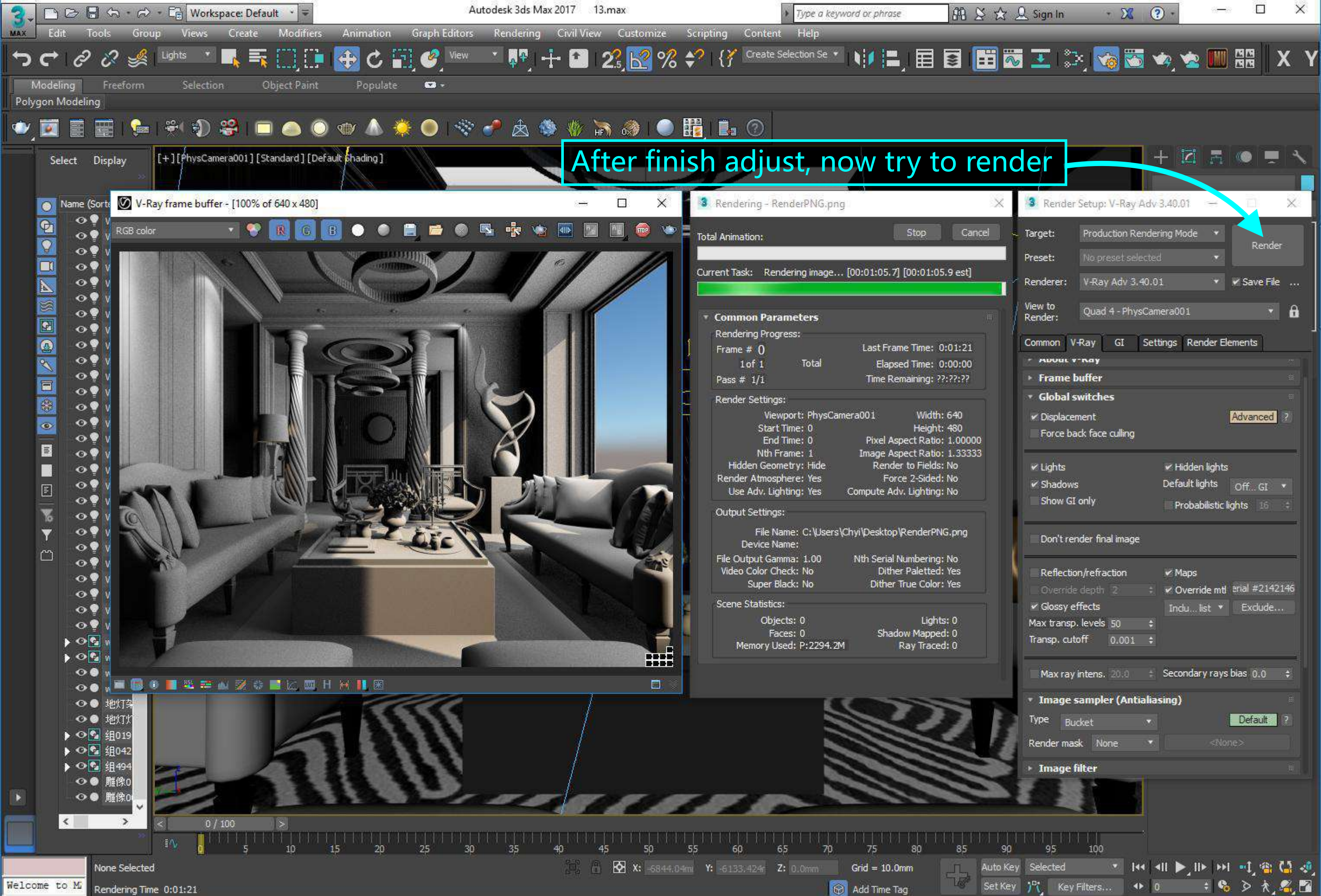
Switch to V-Ray

Disable
Reflection/refraction

Enable Override mtl

Type: Bucket

Min subdivs: 10



After finish adjust, now try to render

Rendering - RenderPNG.png

Total Animation: [Progress Bar] Stop Cancel

Current Task: Rendering image... [00:01:05.7] [00:01:05.9 est]

Common Parameters

Rendering Progress:

Frame # 0	Last Frame Time: 0:01:21
1 of 1	Elapsed Time: 0:00:00
Pass # 1/1	Time Remaining: ????:??

Render Settings:

Viewport: PhysCamera001	Width: 640
Start Time: 0	Height: 480
End Time: 0	Pixel Aspect Ratio: 1.00000
Nth Frame: 1	Image Aspect Ratio: 1.33333
Hidden Geometry: Hide	Render to Fields: No
Render Atmosphere: Yes	Force 2-Sided: No
Use Adv. Lighting: Yes	Compute Adv. Lighting: No

Output Settings:

File Name: C:\Users\Chyi\Desktop\RenderPNG.png

Device Name:

File Output Gamma: 1.00 Nth Serial Numbering: No

Video Color Check: No Dither Paletted: Yes

Super Black: No Dither True Color: Yes

Scene Statistics:

Objects: 0	Lights: 0
Faces: 0	Shadow Mapped: 0
Memory Used: P:2294.2M	Ray Traced: 0

Render Setup: V-Ray Adv 3.40.01

Target: Production Rendering Mode

Preset: No preset selected

Renderer: V-Ray Adv 3.40.01 Save File ...

View to Render: Quad 4 - PhysCamera001

Common V-Ray GI Settings Render Elements

Global switches

☒ Displacement Advanced ?

☐ Force back face culling

☒ Lights ☒ Hidden lights

☒ Shadows Default lights Off... GI

☐ Show GI only Probabilistic lights 16

☐ Don't render final image

☐ Reflection/refraction ☒ Maps

☐ Override depth 2 ☒ Override mtl material #2142146

☒ Glossy effects Indu... list Exclude...

Max transp. levels 50

Transp. cutoff 0.001

Max ray intens. 20.0 Secondary rays bias 0.0

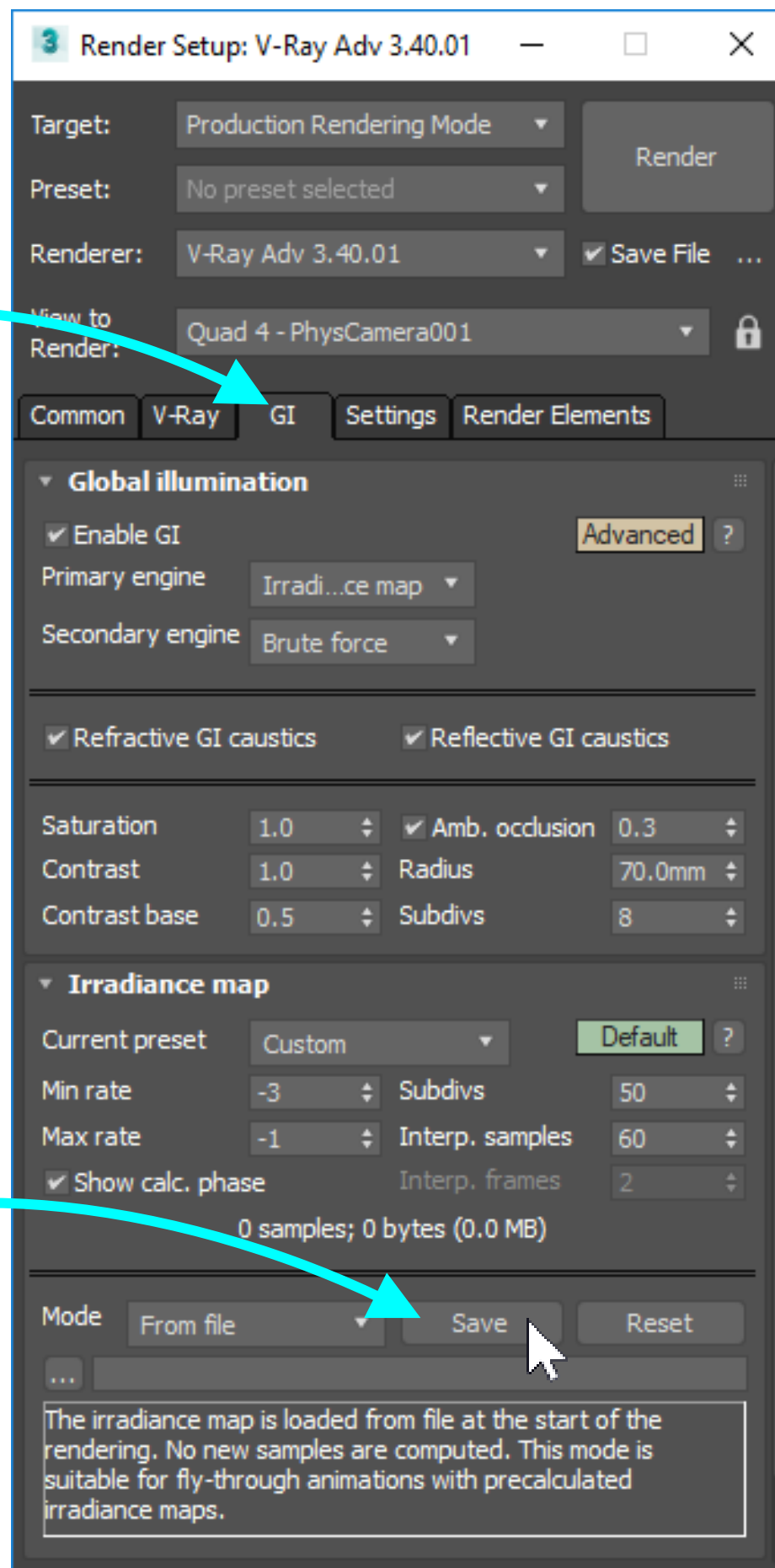
Image sampler (Antialiasing)

Type Bucket Default ?

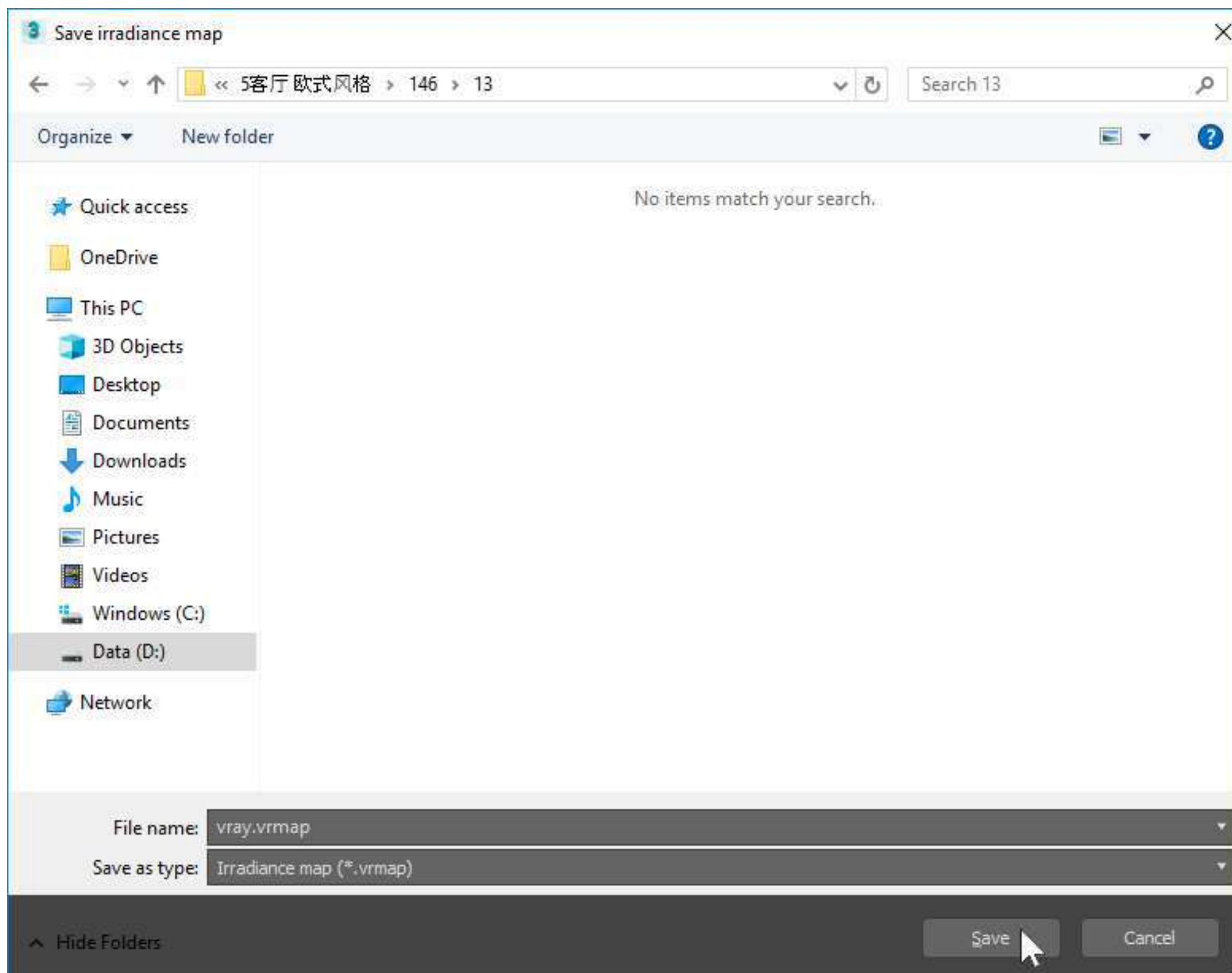
Render mask None <None>

Image filter

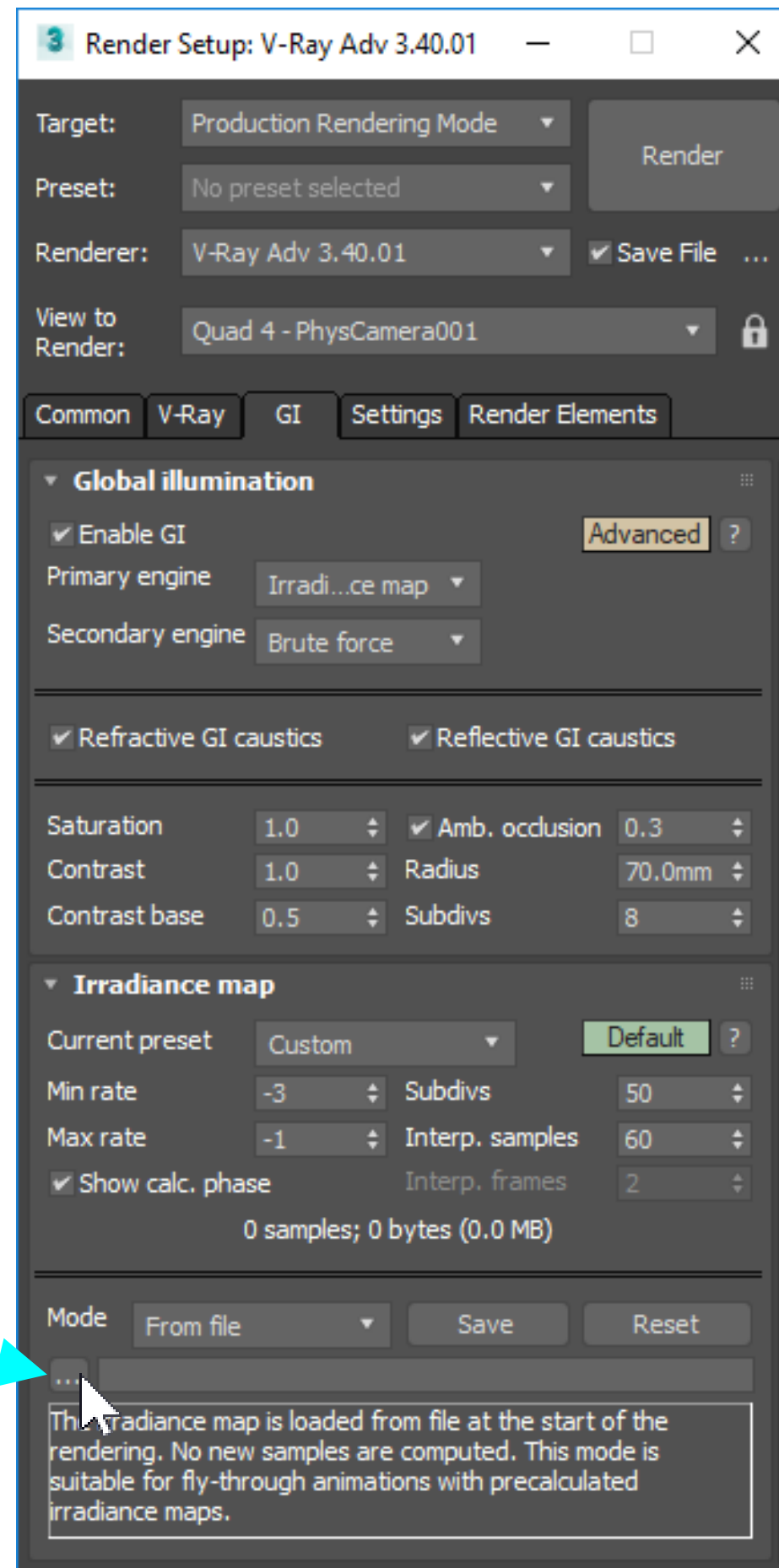
After finish render, switch to **GI**



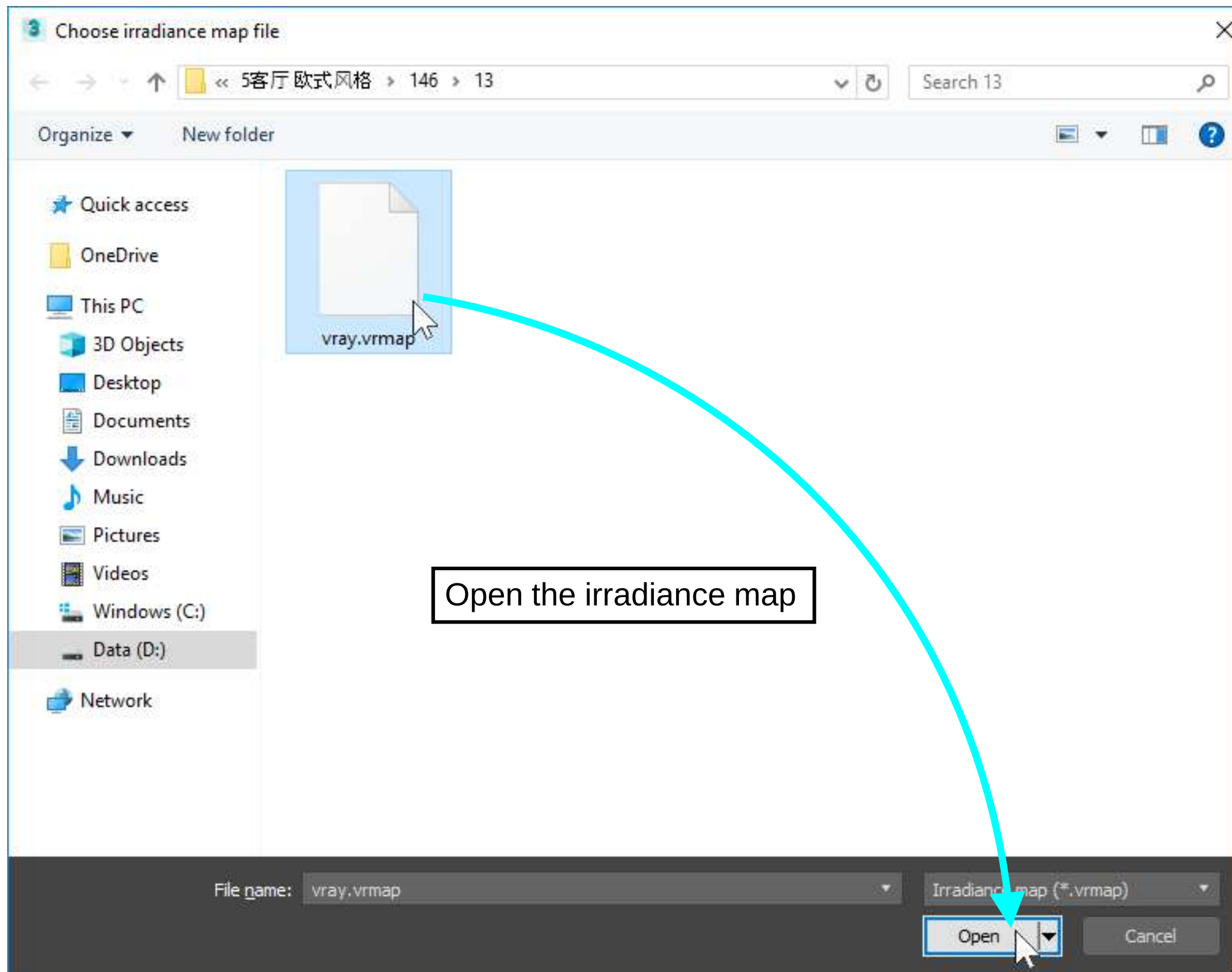
Under Irradiance map, click Save



Save irradiance map



And then click "..."



Switch to V-Ray

Enable Reflection/refraction

Change to Progressive

3 Render Setup: V-Ray Adv 3.40.01

Target: Production Rendering Mode

Preset: No preset selected

Renderer: V-Ray Adv 3.40.01

View to Render: Quad 4 - PhysCamera001

Render

Save File

Common V-Ray GI Settings Render Elements

Global switches

Displacement

Force back face culling

Lights

Shadows

Show GI only

Hidden lights

Default lights Off... GI

Probabilistic lights 16

Don't render final image

Reflection/refraction

Override depth 2

Glossy effects

Max transp. levels 50

Transp. cutoff 0.001

Max ray intens. 20.0

Secondary rays bias 0.0

Image sampler (Antialiasing)

Type Progressive

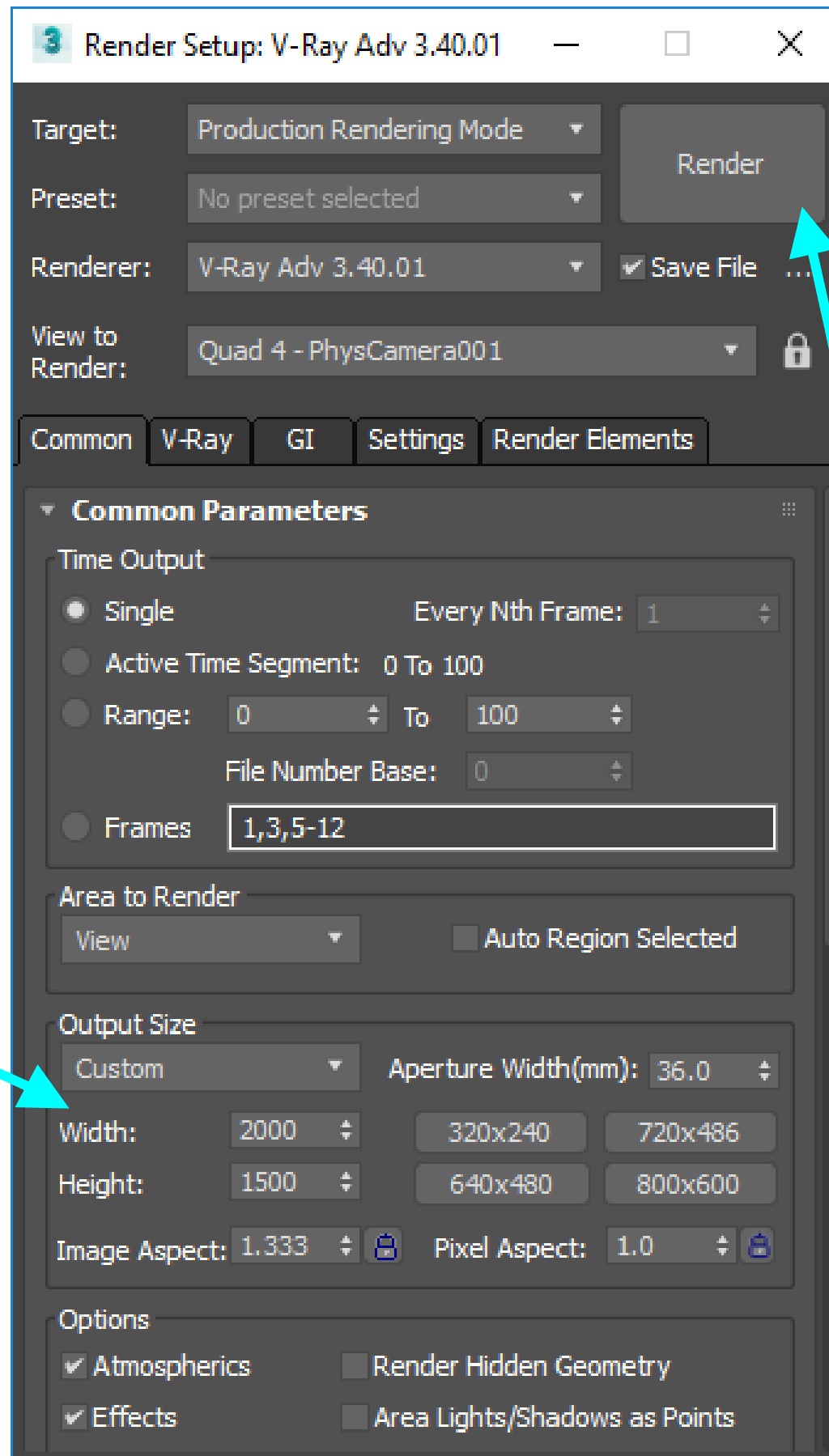
Render mask None

Disable Override mtl

Override mtl

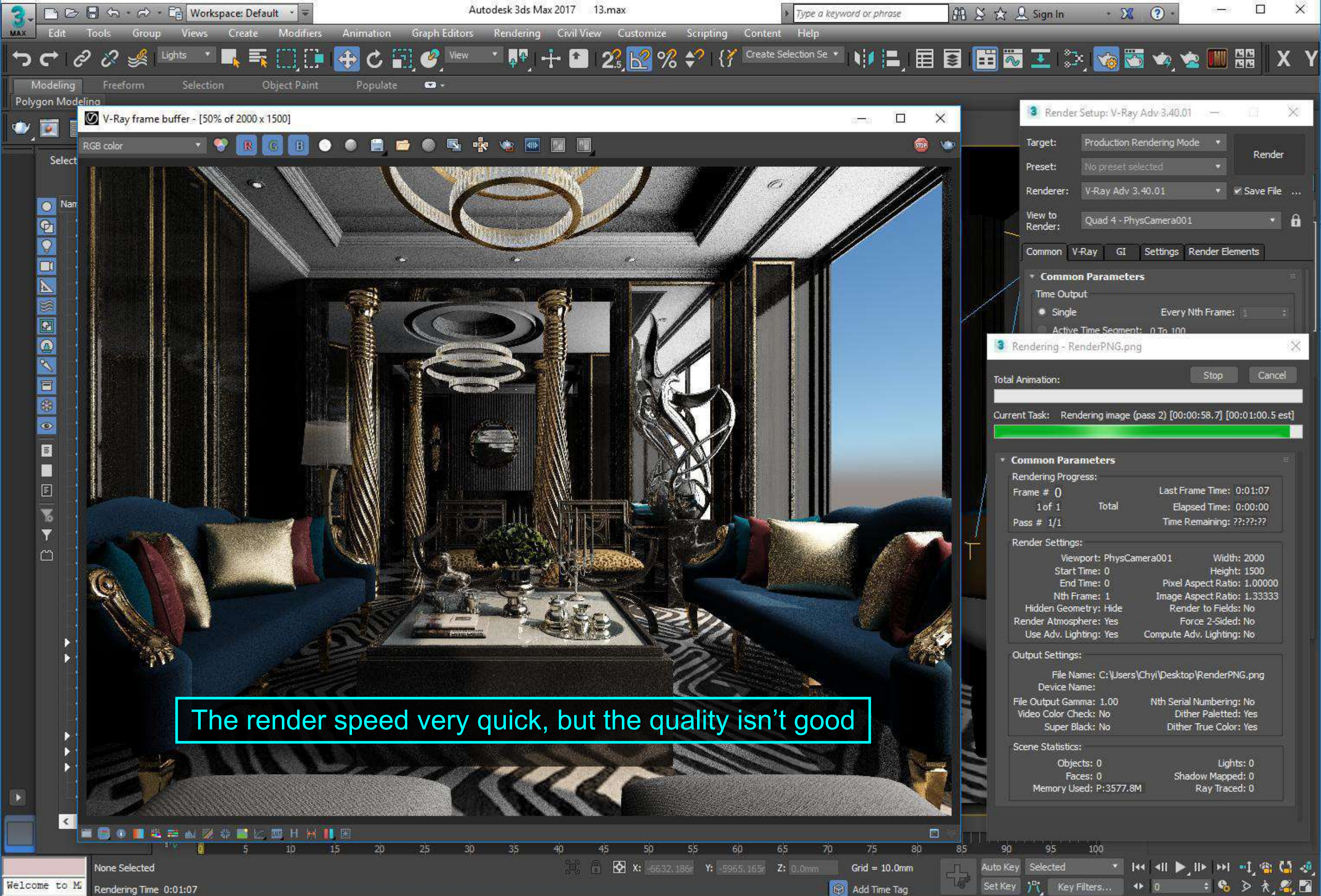
Indu... list

Exclude...



Change to 2000x1500

And then click render



The render speed very quick, but the quality isn't good

Render Setup: V-Ray Adv 3.40.01

Target: Production Rendering Mode

Preset: No preset selected

Renderer: V-Ray Adv 3.40.01

View to Render: Quad 4 - PhysCamera001

Common

V-Ray

GI

Settings

Render Elements

Common Parameters

Time Output

Single

Every Nth Frame: 1

Active Time Segment: 0 To 100

Rendering - RenderPNG.png

Total Animation:

Stop

Cancel

Current Task: Rendering image (pass 2) [00:00:58.7] [00:01:00.5 est]

Common Parameters

Rendering Progress:

Frame # 0

1 of 1

Total

Last Frame Time: 0:01:07

Elapsed Time: 0:00:00

Pass # 1/1

Time Remaining: ??:??:??

Render Settings:

Viewport: PhysCamera001

Width: 2000

Start Time: 0

Height: 1500

End Time: 0

Pixel Aspect Ratio: 1.00000

Nth Frame: 1

Image Aspect Ratio: 1.33333

Hidden Geometry: Hide

Render to Fields: No

Render Atmosphere: Yes

Force 2-Sided: No

Use Adv. Lighting: Yes

Compute Adv. Lighting: No

Output Settings:

File Name: C:\Users\Chyi\Desktop\RenderPNG.png

Device Name:

File Output Gamma: 1.00

Nth Serial Numbering: No

Video Color Check: No

Dither Paletted: Yes

Super Black: No

Dither True Color: Yes

Scene Statistics:

Objects: 0

Lights: 0

Faces: 0

Shadow Mapped: 0

Memory Used: P:3577.8M

Ray Traced: 0

None Selected

Rendering Time 0:01:07

Grid = 10.0mm

Add Time Tag

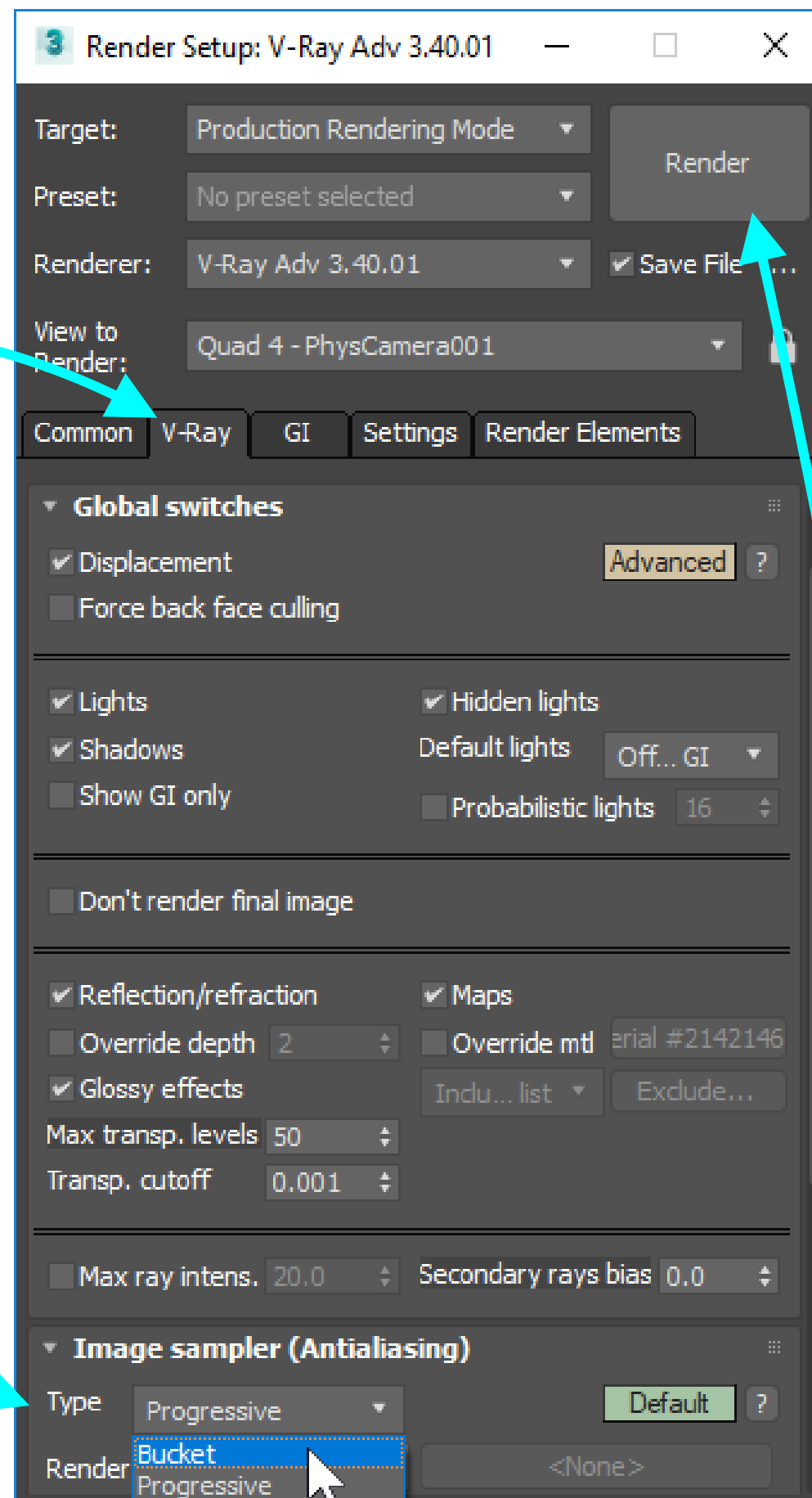
Auto Key

Selected

Set Key

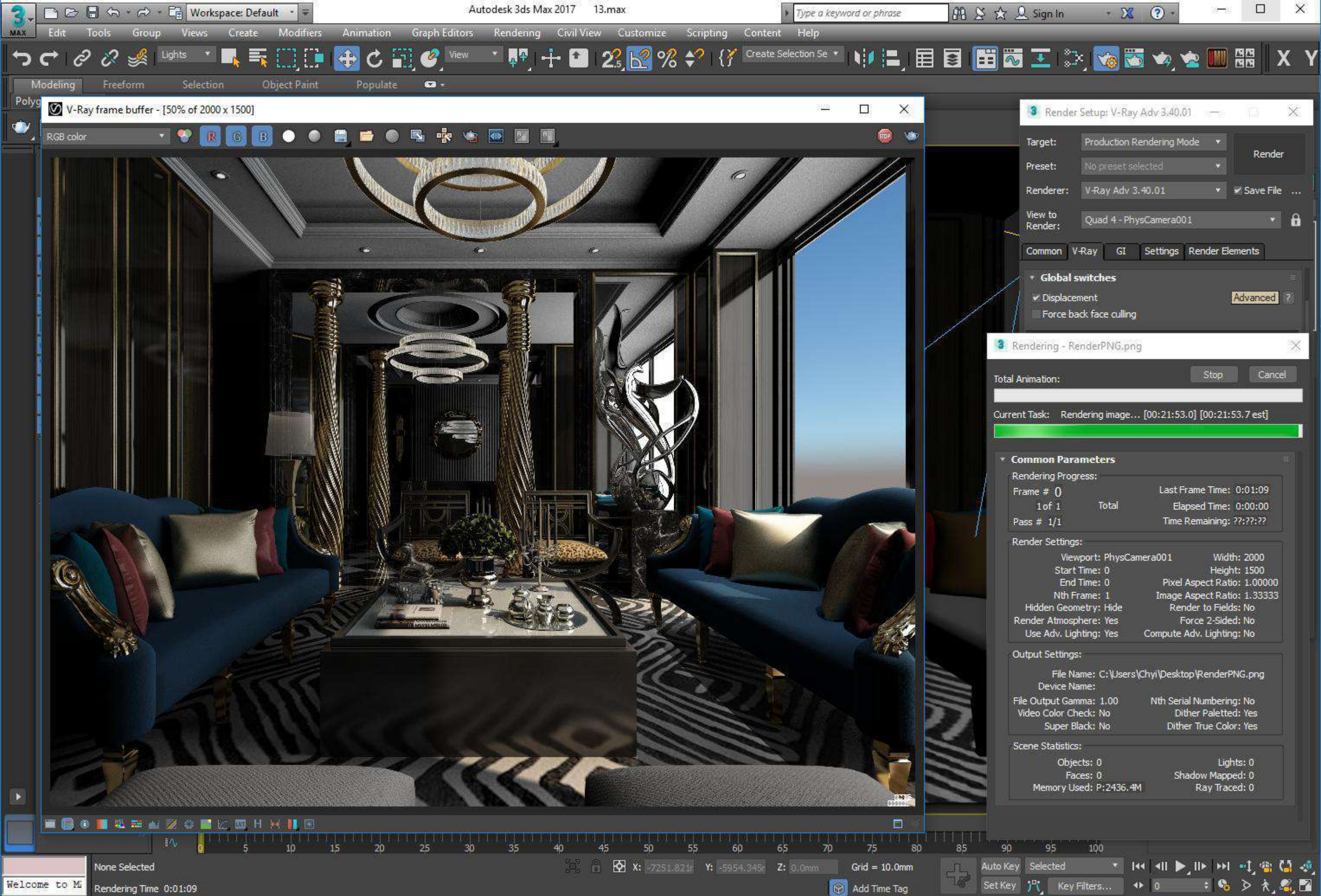
Key Filters...

Click V-Ray



Change the Progressive → Bucket

And then click render



V-Ray frame buffer - [50% of 2000 x 1500]

RGB color



Render Setup: V-Ray Adv 3.40.01

Target: Production Rendering Mode

Preset: No preset selected

Renderer: V-Ray Adv 3.40.01

View to Render: Quad 4 - PhysCamera001

Common V-Ray GI Settings Render Elements

Global switches

Displacement

Force back face culling

Advanced ?

Rendering - RenderPNG.png

Total Animation:

Stop

Cancel

Current Task: Rendering image... [00:21:53.0] [00:21:53.7 est]

Common Parameters

Rendering Progress:

Frame # 0

1 of 1

Pass # 1/1

Last Frame Time: 0:01:09

Elapsed Time: 0:00:00

Time Remaining: ??:??:??

Render Settings:

Viewport: PhysCamera001

Start Time: 0

End Time: 0

Nth Frame: 1

Hidden Geometry: Hide

Render Atmosphere: Yes

Use Adv. Lighting: Yes

Width: 2000

Height: 1500

Pixel Aspect Ratio: 1.00000

Image Aspect Ratio: 1.33333

Render to Fields: No

Force 2-Sided: No

Compute Adv. Lighting: No

Output Settings:

File Name: C:\Users\Chyi\Desktop\RenderPNG.png

Device Name:

File Output Gamma: 1.00

Video Color Check: No

Super Black: No

Nth Serial Numbering: No

Dither Paletted: Yes

Dither True Color: Yes

Scene Statistics:

Objects: 0

Faces: 0

Memory Used: P:2436.4M

Lights: 0

Shadow Mapped: 0

Ray Traced: 0

None Selected

Rendering Time 0:01:09

Grid = 10.0mm

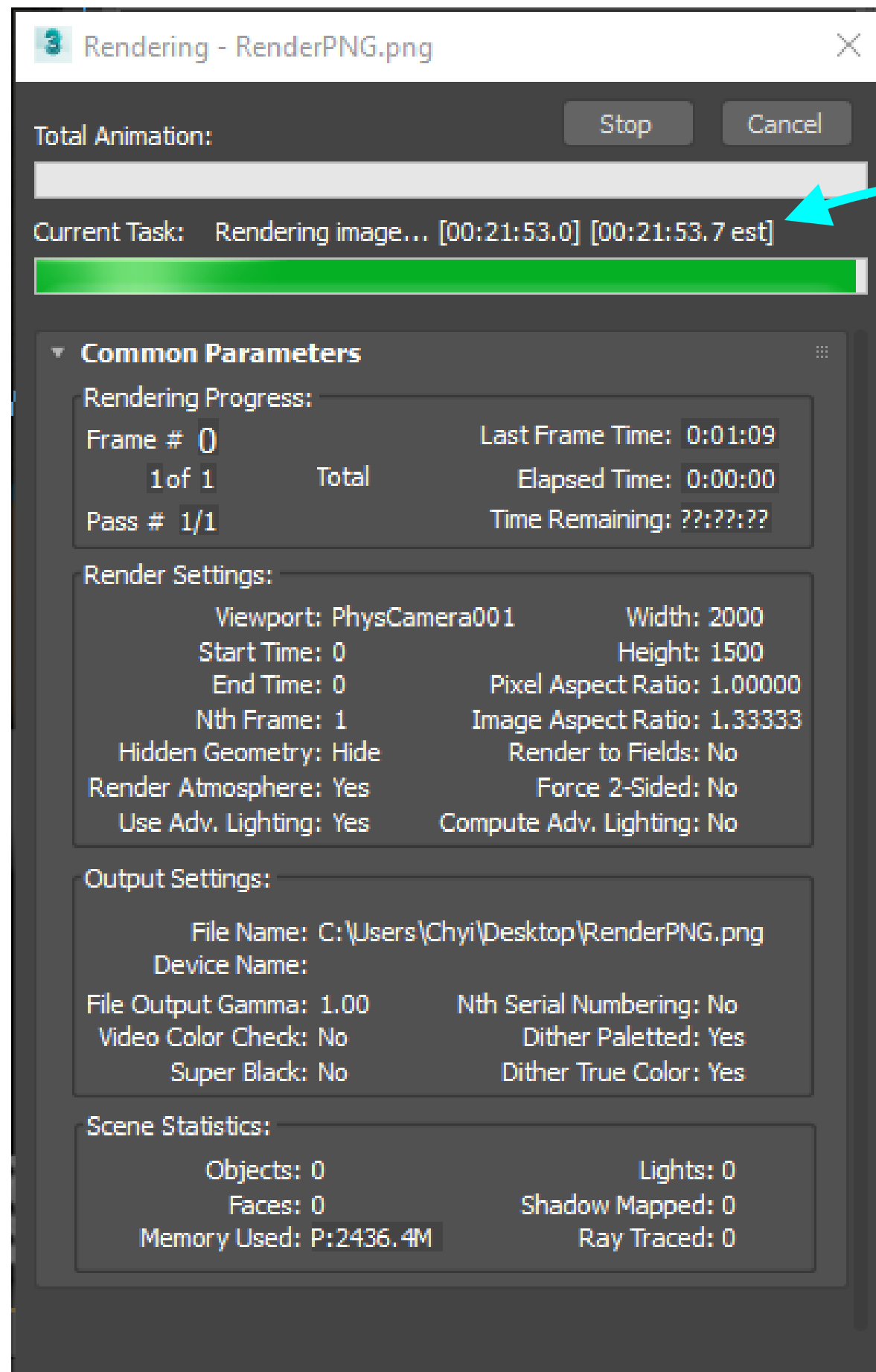
Add Time Tag

Auto Key

Set Key

Selected

Key Filters...



Use about 22 minutes to render

